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JULY-AUGUST, 1942

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(See Colonel Graham's article, "The Lost Is Found," on page 61 of this issue)

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By Colonel W. A. Graham, Judge Advocate U. S. Army Retired

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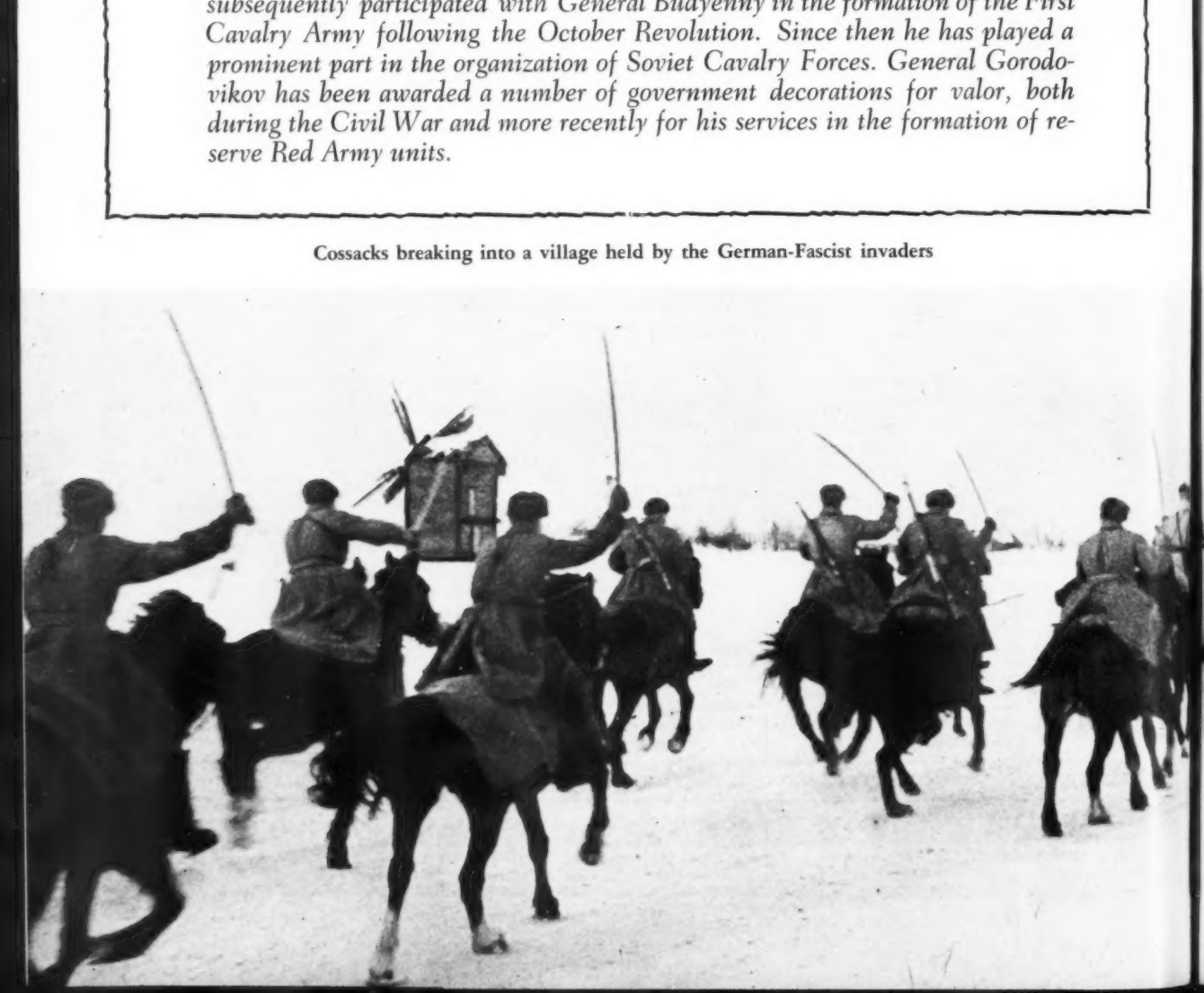
Soviet Cavalry

By General O. I. Gorodovikov

EDITOR'S NOTE: *This article was wirelessed from Moscow on June 19, 1942, (ICN) for the exclusive use of The* CAVALRY JOURNAL. *General Gorodovikov served in the First World War as a cavalry officer in the Russian Army and subsequently participated with General Budyenny in the formation of the First Cavalry Army following the October Revolution. Since then he has played a prominent part in the organization of Soviet Cavalry Forces. General Gorodovikov has been awarded a number of government decorations for valor, both during the Civil War and more recently for his services in the formation of reserve Red Army units.*

Cossacks breaking into a village held by the German-Fascist invaders



Try Fights!

THE Soviet Union's strategic cavalry played, and continues to play an important part in the war against Hitler Germany. One year of war has served to refute the prevalent underestimation of cavalry.

Within the last 20 years, in practically every country, the theory was established that in modern mechanized warfare, cavalry can be of no operational importance. Certain military experts went as far as to assert that cavalry had become obsolete and that its day was gone, never to return. This conception of the obsoleteness of cavalry dates back to the first World War of 1914-18. Indeed, that war disillusioned many a commander with regard to cavalry potentialities. Let us analyze in brief the roots of this disillusionment.

First of all in nearly every army, cavalry entered the *last war* practically as the most backward arm of the service and was poorly armed. Cavalry training in peacetime was based on the desire to achieve perfect squadron, regimental and divisional formation for closed rank attacks. Shooting practice was hardly cultivated and fighting on foot was considered unnecessary as a part of a cavalryman's training. Moreover, the tactical training of the commanding personnel and staff officers in cavalry units was manifestly inadequate. In short, the entire scheme of training cavalry still rested on the traditions of the nineteenth century. Little wonder then, that in the very first phase of the war, cavalry came up against enormous difficulties.

Horse attacks encountered deadly fire from rifle units and artillery. When they did achieve success, it

Cossacks occupied the town of Yukhnov on March 6th. The bridge across the Ugra River was blown up by the Hitlerites during their retreat

was only at the cost of terrific losses in men and horses. The high commands of all armies and the Russian Army in particular were guilty of numerous errors in the operational utilization of the cavalry units. The cavalry was not used in large masses but was evenly distributed division by division along the entire front. Obviously with such scattered forces and inadequate equipment, the cavalry could not produce any significant effect. By 1915 when the armies passed over to positional warfare, the cavalry units found themselves without jobs. Part of the horse units were converted into foot soldiers and dispatched to the trenches and, significantly, Germany was the first to resort to this measure. The remaining cavalry was formed into a horse corps and provided with more infantry and artillery weapons and supported by armored vehicles (this was done by the Allies and partly by Tsarist Russia) to be utilized as a mobile reserve of the High Command.

In the summer and autumn of 1918, cavalry operations were eclipsed by the wide use of aviation and tanks and consequently attracted but little attention. Yet the British and French cavalry corps played a significant rôle in liquidating the March and April German breakthroughs. At that time Allied cavalry units rushed to the scene of German penetration in Flanders and Champiegne, stood up to the German blow and held the front until fresh reserves could be pulled up.

These examples of *correct operational usage of cavalry* were few and far between and were lost in the overwhelming reverses suffered by horse units.

It was these reverses that led the commanders of the most belligerent armies to take a negative view of cavalry as an independent arm and to favor the gradual replacement of cavalry by mechanized units.

This evolution of cavalry in western Europe was completed in several stages over twenty years from 1919 to 1931. During that period a large part of the cavalry divisions and brigades in Britain, France, Germany as well as some cavalry units in the U.S.A., were reorganized into tank units.

The Red Army cavalry was developed and trained in a different atmosphere. Following the First World War, Soviet Russia went through a difficult stage of three years of civil war, in the course of which its armed forces were organized, steeled and the basic principles of Soviet tactics crystallized. Cavalry's greatest asset, mobility, was displayed to the full in the civil war which was fought over vast stretches, along broken fronts and with less technical equipment than at the European fronts. Stalin, who in those days stood at the head of the Soviet Union's armed forces in South Russia, carried out a concentration of strategic cavalry, unique in the post-Nalpoleon period.

On his initiative, the first and subsequently second mounted armies were organized. At the same time, due account was taken of the experience of the First World War in respect to technical equipment of the horse units. Soviet cavalry formations, *due to their high maneuverability and extensive fire and striking power,* were able to carry out a series of brilliant operations in the Civil War. This success predetermined the further developments of Soviet cavalry.

Industrialization of the Soviet Union enabled the Red Army Command to equip the cavalry units with all up-to-date weapons. Their tactics were adapted to the latest developments in warfare. The initial stage of the war against Hitler Germany found the cavalry, as well as the Red Army in general, laboring under unfavorable conditions. The German High Command had already mobilized, concentrated, and deployed three-quarters of all Germany's armed forces and the overwhelming part of her air force at the Soviet frontier, and was able, therefore, to inflict a sudden blow on the USSR's western districts and thus acquire advantages

that followed naturally from the suddenness of the attack.

In these early days of the war the Hitlerites had great superiority, particularly in tanks and aircraft. The Red Army's strategic cavalry took the defensive, but in the fulfillment of its defensive tasks, it resorted to active operations and not without considerable tactical success. The cavalry was entrusted with the defense of important objectives, with covering the withdrawal of our troops, dealing counter blows against the penetrating enemy troops, and raiding the enemy rear.

A few examples will suffice to illustrate the nature of its activity. Cavalry units under General Kryuchenken in the period between June 24th and 30th (1941), were engaged in defending a particularly important line along the Ikna River in the vicinity of Krementets against the First German Panzer Army under General Von Kleist. General Kryuchenken covered the bridgeheads with part of his forces and artillery and, having massed large formations of cavalry and tanks by a rapid maneuver, inflicted a series of blows on the 16th German Panzer Division, as a result of which the enemy lost over 2,500 killed and over forty tanks. By this maneuver, Soviet cavalry held up the advance of part of the German army for quite some time, thereby enabling the Soviet infantry units to withdraw from the battle.

In early August, 1941, German panzer units forming part of General Guderian's army, broke through to Krichev, Chausi and subsequently attempted to advance towards Roslavl. Their intention was to capture a long point and to cut off the Soviet troops operating north of it. Soviet cavalry, under Colonel Kuliev, concentrated southwest of Roslavl, were ordered to attack the enemy flank, immobilize his forces and thus enable our troops to withdraw in order. On August second, after a rapid nocturnal march, Kuliev's cavalry units reached the vicinity of Shumyachi. The engagement began with heavy fire centered on the enemy tanks and motorized units, followed by a vigorous attack. With the grave menace to his flank, Guderian was compelled to withdraw his main forces southward to offset our cavalry which by a series of clever maneuvers continued to draw the enemy away from the main objective and thus make possible the withdrawal of Soviet troops to the east.

By September 29, 1941, mobile formations of the German 9th Tank and 25th Motorized Divisions had captured the town of Romny and threatened to encircle the Soviet troops withdrawing to the east. Cavalry, under General Belov, reinforced by a tank unit and operating in conjunction with a motorized infantry division, inflicted a serious defeat on the Germans and pressed them back to the southwest. This obviated the danger of encirclement and enabled the Soviet troops to pass to safety. In these engagements, Belov's cavalry accounted for over 1,500 German men and officers, captured over 500 motor trucks, 250 motorcycles and tremendous quantities of other war supplies.

On another occasion, German army units reached the River Mezha where they took up defensive positions to regroup and deploy for further advance. Soviet cavalry under Colonel Dovater, received orders to raid the enemy rear in order to frustrate their preparations for advance. On August 13th, Dovator's troops concentrated in the vicinity of Pozhano, Fomino and Budnits. Concealed in the dense forests from the German air force, Dovator's advance units carefully reconnoitered the ground. Colonel Dovator detected a break through

Cossacks attack Nazi defenses on the Kalinin Front supported by tanks and airplanes

Soviet Cavalry turning the flank of an enemy's center.

the German defenses at Ustye and Podkyazye where two battalions of the 450th German Infantry Regiment, reinforced by artillery, had taken up defense positions.

At dawn on August 23d, a Cossack unit with an advance detachment on foot and the main body mounted, attacked the enemy defense, crushed the German battalions and broke through to the rear. The Cossacks smashed up the German headquarters, supply depots, transport trains, broke communication lines and wrought panic behind the German lines where rumors of "a hundred thousand Russian Cossacks" breaking through were rapidly spread. The Germans hurled large infantry units and tanks against the advancing cavalry, but this did not hinder the latter from completing its assignment, breaking through the German lines and returning safely. The raid was entirely successful and compelled the enemy for a long time to abandon offensive plans and, in places, even to retreat.

In December the Red Army passed over from the defense to the offensive and this marked the beginning of the second stage of the war. The activities of Soviet cavalry were greatly extended, for now it was called upon to break up the enemy's striking forces, harass communications and pursue the retreating German army.

Following are typical examples of Soviet cavalry operations in this period. General Belov's cavalry corps, renamed the First Guard Cavalry Corps, played an important and distinguished part in the counterblow dealt by the Soviet troops at the Central Front against General Guderian's Second Panzer Army which had broken through northeast of Tula. Guderian's army was heading for Serpukhov and Kashira, but came up against stiff resistance of Belov's cavalry. Operating in conjunction with other branches of the service, Belov's mounted guardsmen stemmed the advance of Guderian's units. While Soviet infantry held the Germans at the front, the cavalry outflanked the enemy and attacked the motorized units, thereby compelling Guderian's army to sound a general retreat.

On December 6th, Belov's troops continued to develop this operation along the Kashira-Yelets railway and three days later on December 9th, Belov attacked the enemy at the town of Venev, which he captured after a hard-fought engagement. The Germans lost over 2,000 killed here.

The following day Belov was hot on the heels of the retreating Germans and captured Stalinogorsk. After clearing the town of enemy resistance pockets and capturing over 2,000 motor trucks, fifty tanks, forty-two artillery pieces, over 100 motorcycles and huge quantities of other war materials, Belov continued to press southwards.

December 7th found Belov's horsemen cutting across the Tula-Orel highway and decisively hurling back the remnants of the German 17th Tank, 29th and 70th Motorized and 167th Infantry Divisions which constituted Guderian's wedge, northeast of Tula and which the German command intended to use in crushing the southern flank of the Moscow defenses.

Here is a description of other typical operations. At the beginning of December, the German command captured the town of Yelets and concentrated strong forces there with the intention of capturing the Moscow-Rostov railway, subsequently occupying the district of Gryazi, Voronezh, and thus cutting off the western from the southwestern front. The commander of the Soviet southwestern front planned a counterattack against this German force and a decisive part in this attack was assigned to strategic cavalry. The Third Cavalry Guard Corps under General Kryuchenken, operating south of Yelets and a cavalry corps under Colonel Kuliev, operating from the village of Telegino, were instructed to break up the enemy rear and communications and, in conjunction with infantry and tanks, advancing from the front, encircle and destroy the enemy. Advancing northwards along the rivers Kshen and Olym, Kryuchenken's cavalry on December 6th encountered and crushed the 95th German Infantry Division. Pursuing its remnants, Kryuchenken occupied the village of Rososhnoye and uniting with cavalry under Kuliev closed the circle around the German troops.

As a result of the *flank blows by the cavalry* and the frontal attack by the 95th and 134th Soviet Infantry Divisions, the enemy force was crushed. The Germans lost over 12,000 killed and wounded, 226 artillery guns, 319 machine guns, 907 trucks, 1,260 horses and large stocks of supplies.

On December 6th Soviet troops, having crushed the German advance on Moscow and frustrated their attempts to capture the Soviet capital, launched the counteroffensive. The Second Guard Cavalry Corps under General Dovator was instructed to advance through a gap in the enemy front and penetrate into the vicinity of villages Nikolskoye and Pokrovskoye, in order to cut off the German retreat. General Dovator directed his main mounted and tank forces along a direction parallel to that of the German retreat denying the Germans a road to the west. Dovator's units made quick time along the forest roads, always keeping well ahead of the enemy, and by December 15th reached the villages of Petrovo and Zhitonino, thus cutting off all enemy roads of retreat.

On December 16th a German infantry division, stretched out in a long column along a forest road, was attacked by Dovator's horsemen and tanks simultaneously at the head, tail and flanks. German resistance was furious but the division was wiped out to a man.

What has brought the Soviet cavalry success in this war of motors, which, if we were to believe military experts, provided no scope for cavalry? Space permits enumeration of only the basic factors making for the *cavalry's success.* First and foremost, mention should be made of the *correct utilization* by the Soviet Command of *large scale strategic cavalry formations* with due regard for the *specific features peculiar to cavalry* as distinct from other arms. Cavalry was employed at such directions and given such tasks as enabled large scale maneuvering and free scope against the enemy flank and rear communications when developing the advance or pursuing a retreating army. Soviet cavalry units are well equipped with modern weapons. In addition, larger cavalry units are provided with *ample tank and air support* and where necessity arises are supported by infantry as well. Infantry stiffens the cavalry's fire and striking power and at the same time serves as an axis around which the cavalry can perform its maneuvers and inflict its blows at the adversary's vulnerable spots.

To this should be added the exceptional bravery and steadfastness of the Soviet cavalrymen, their spirit of self sacrifice in fighting the hated enemy. Soviet soldiers fully appreciate the noble aims of the war fought for liberation and in alliance with freedom-loving peoples of the world against the Hitler invaders and enslavers. The war against Hitler Germany which the Soviet Union is waging in close unity with the great peoples of Britain, the USA and China is now entering the decisive phase. The Nazi monster which has plunged the world into war must be crushed by united effort. The growing forces and fighting collaboration of Great Britain, the USA and the Soviet Union are tokens of victory.

Larry Lesueur (from Moscow)

"I just returned from riding to maneuvers with the 'Glamour Boys' of the Red Army, The Cossack Cavalry. I can understand now why the Red Army has expanded its Cavalry force since the war began. Heavily armed with antitank guns, antitank rifles, field artillery, the Cossacks can pass anywhere to make devastating attacks on the rear of the enemy, especially at night. I was told by Major General Obeckoff that the work of the American Cavalry in the Civil War was the model for 1942 Cossack operations. The Russian Cossacks are now feeling American aid too. I watched orders for the traditional hair-raising Cossack charge being given over a field telephone supplied by the Connecticut Telephone Corporation."—*Columbia Broadcasting System, New York, 8:00-8:15* AM *(EWT) Broadcast Tuesday, June 30, 1942.*

Antitank Defenses of a Soviet Rifle Division*

By Lieutenant Colonel I. Vorobyev**

SOVIET infantry divisions have modern antitank equipment—antitank guns and rifles, special hand grenades and armor-piercing bullets—used in combination with artillery and aviation which enable it to repel formidable Nazi panzer attacks and the strongest counterattacks.

This was clearly brought out in particular during the May fighting at the Kharkov and Izymm-Barvenkovo sectors of the front. Incidentally, the Germans here adopted somewhat modified forms of utilizing tanks. This time their tanks worked in close coöperation with the infantry. Undoubtedly this modification reflects the strengthening of the Red Army's antitank defense and testifies to the steadfastness of Soviet infantry.

The technical equipment at the disposal of the Red Army allows for considerable development of the existing antitank defense and indeed at present the antitank defense represents a combination of antitank artillery and rifle fire, natural and artificial barriers and fire from all artillery and infantry. This combined system is based on the interaction of all antitank weapons echeloned in depth and massed at vulnerable points. The determination of these vulnerable points is the basic factor in planning any system of antitank defense, for the bulk of the antitank weapons are centered at or around these points. The commander of the division must decide where and how he intends to destroy penetrating enemy tanks, what measures will be taken to strengthen regimental defenses, what reserves he will maintain and what orders he will issue to artillery and engineers.

One form of combating tanks in the depth of defense positions is the organization of antitank pockets at vulnerable directions. These pockets are built by organizing antitank areas and resistance posts in such a way that enemy tanks breaking in between them will be held up at the barriers and subjected to fire from the flanks and front. Antitank areas are sections of the de-

*Wirelessed for THE CAVALRY JOURNAL through ICN, from Moscow, June 22, 1942.

**Red Army.

Red Army men firing the antitank rifle which has been so successful in destroying hundreds of Nazi tanks.

In defense operations, tanks carrying antitank gun crews are held in mobile antitank reserve.

fense zone equipped with antitank barriers and defended against attack from all directions. Such areas are usually built on sites with ravines, woods, streams, bogs, lakes, steep slopes or inhabited points. Sites without natural barriers are covered with minefields, ditches, cleats and pits. One area known as the chief area is equipped by the division commander. It serves for concentration of the main striking force, has its artillery position and observation post for the division commander.

Other antitank areas are organized by division or regimental commanders. The number of these areas is determined in accordance with the number of vulnerable points and plan of the division commander. These areas serve as a cover for the assault troops of infantry regiments and as gun positions for artillery and observation posts. The spaces between basic and auxiliary antitank areas are filled in by antitank obstacles, making use of every possible natural hindrance. Increasing of such natural obstacles by flooding the area to form a bog, or cutting steeper inclines greatly enhances the effectiveness of the area. Antitank obstacles must be so placed as to lead the enemy tanks under antitank artillery fire. The division commander maintains at his disposal a mobile antitank reserve. In accordance with changing circumstances, this reserve is utilized either behind the antitank defenses or is advanced to attack, penetrating the tanks from the rear and preventing their escape from the antitank pocket.

Needless to say, the reserve must be prepared for lightning maneuvers, for building new antitank defenses and destroying the enemy tanks appearing before them. These tasks predetermine the makeup of the reserves which as a rule consists of antitank artillery, antitank rifles, sappers for mine-laying and portable obstacles carried by trucks.

An infantry regiment may receive antitank reinforcements from the division commander. The regimental commander decides on the plan of destroying the enemy tanks penetrating his sector, strengthens his antitank defenses of the battalion and maintains a mobile reserve. The regimental commander organizes antitank resistance posts working in conjunction with auxiliary antitank areas. The spaces between auxiliary area and posts are intersected with antitank defenses, by building an antitank pocket or choosing some other form such, for example, as a series of obstacles supplementing some natural obstacles in the area. The battalion commanders, using their own and additional antitank weapons, organize a barrage at the front and in the depth of their defense sectors and build antitank defense posts, ambushes, tank traps, etc.

Antitank defense sectors are equipped with regimental and battalion guns, antitank rifles, and are manned by groups of tank destroyers armed with grenades and inflammatory bottles. Artillery is so arranged as to concentrate their fire at the most vulnerable spot and maintain fire. The distance between the antitank guns and rifles should be no less than 50 meters in order that an explosion of shell or mine will not silence several guns simultaneously. Antitank defense posts

must have a clear range and observation in all directions.

In addition to basic positions, reserve and camouflage positions are prepared. All trenches are of full height and in addition shelters and dugouts are provided for the men and equipment. Antitank weapons at the antitank defense posts must supplement each other. Fire is opened only when the enemy tanks reach the obstacle zone and are forced to decrease their speed. Fire is opened by the regiment and battalion artillery guns while the antitank rifles serve to cover their positions. As the tanks advance, the rifles come into action and they in turn are covered by tank destroyers. Directions exposed to tank attacks are reinforced with several layers of fire. Where there is danger of penetration, only single machines, or for purposes of flank fire, one squad of antitank rifles is sufficient, reinforced by two or three sappers with antitank mines and one or two submachine gunnners.

Artillery uses mobile barrage fire against tanks moving into attack. The air force works in close interaction with the artillery. In defense operations, the tanks are usually stationed in zones of second echelons. They must be prepared for a joint action with mobile antitank reserve. Infantry fire covers the obstacles and the positions of antitank artillery. Infantry also concentrates a shower of armor-piercing bullets against vulnerable spots on the tank, turrets, etc.

The Germans sometimes resort to sham tank attacks in order to detect the system of antitank defenses. They collect motorcycles and several old tanks and with much noise and bustle stage an attack. An important thing for the defenders is not to reveal the location of their antitank weapons because after such sham attacks the Germans usually open heavy artillery fire and concentrate their aircraft on all areas where artillery is discovered. Cases are known of several such sham attacks being staged before the real attack was made. Therefore, only specially designated guns open fire during such sham attacks. The barrage of antitank artillery and rifles must be sudden and is opened when the enemy tanks are within short distances. Enemy infantry must be off from the tanks thus making interaction impossible. The division commander concentrates an artillery barrage on the main enemy force in order to separate the infantry from the tanks. Enemy tanks penetrating the front line must be stopped at the obstacles and destroyed by fire or antitank weapons. At this stage of the battle, the Germans sometimes withdraw their tanks and open up artillery fire and concentrate their air force on points which offer the greatest antitank resistance. In such cases antitank weapons must be shifted to a reserve position and even change the position of the defense posts. As the enemy tanks approach, the regimental commanders put their plans into operation. If they fail to stop the tank attack with their own means, the division commander orders additional means to destroy the penetrating tanks.

Antitank rifle crew of the Red Army lying in ambush.

Red Tanks Overcome Real Obstacles

ENGINEERS of the Red Army were given a problem as follows:

In order to relieve a town about to be invaded by the Nazis we must make a flank attack. There are no roads. On one side there is an impassable swamp. On the other there is a river with a steep bank—a bank of a 90° angle.

The engineers proposed cutting a road, but the Red Army commander said "No blasting." They suggested doing the work by hand; but this would take twelve hours, and they were allowed only six.

So the problem was finally solved by lowering the tanks one by one over the bank, after a corps of engineers had been dropped at the spot by parachute and prepared for the job.

The tanks were joined to each other by two cables at each end. As a tank started down the bank, the two front cables were kept taut by the measured advance of the tank in front. What kept the cables taut at the top of the bank was not revealed.

When the tanks reached the bottom of the bank they drove swiftly out into the stream and across to the opposite low bank, thus facilitating the descent of the tank behind. One after the other a corps of tanks was brought across the river in this way and sent into action against the "enemy."

The surprised "enemy" commander said: "How under the sun could you get here—across a swamp, which is impassable; or over a cliff which is just as impassable to tanks! Did your tanks fly?"

"When necessary, our tanks can fly," said the commander of the victorious forces.

Since last June 22nd the Nazis have had many occasions to wonder whether Soviet tanks had really learned to fly—when they suddenly appeared in places "where they could not possibly be."

EDITOR'S NOTE: *A careful study of the pictures sent us by Sovfoto fails to disclose the method by which the last tank was lowered from the top of the bank. However, inasmuch as a large number of tanks were used in the operation, it is possible that one or two remained at the top and did not take part in the attack.*

The method of overcoming such formidable obstacles presents an interesting and practical problem for the Engineers in our own Armored Force.

Organization of German Defense

By Major C. Lopatin*

THE German defense depends upon a system of fire, combined with land fortifications and obstacles, using all advantages afforded by the terrain. Their defensive positions usually extend along streams and rivers with steep banks. They also make extensive use of hills and valleys, or ravines.

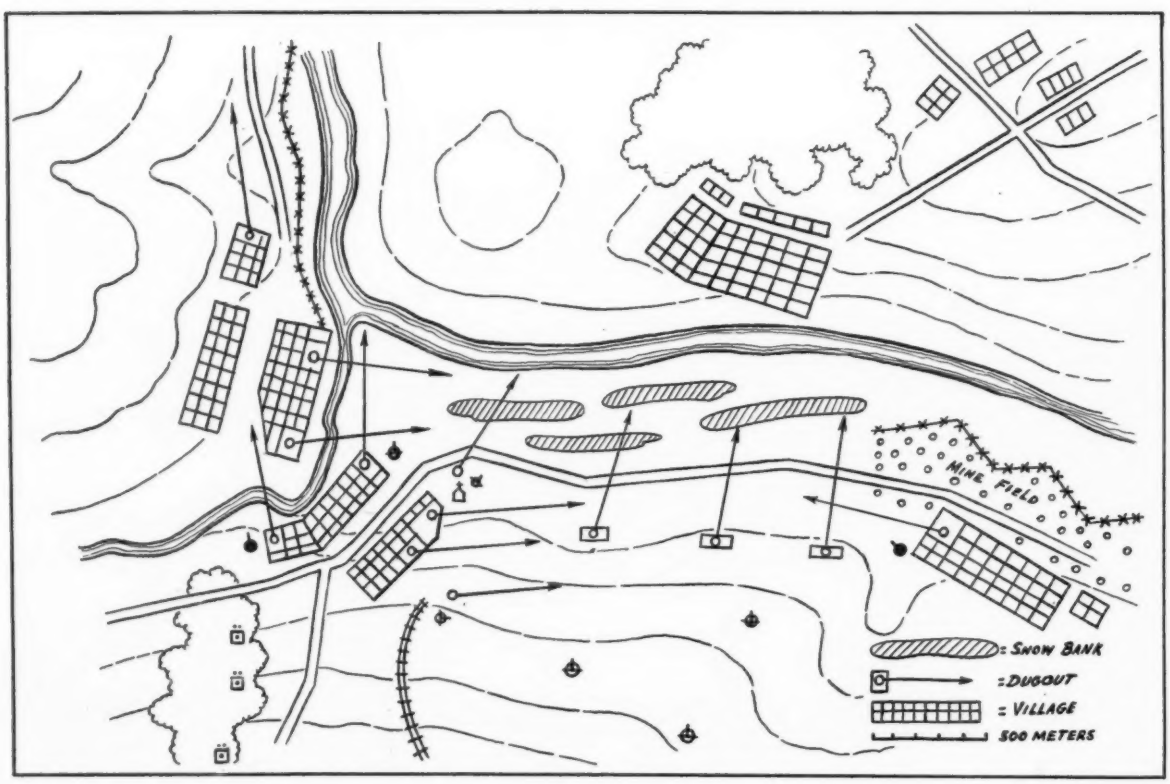
The plan of a German defense used on one of the parts of the front is shown on the attached sketch.

The Germans used all the advantages presented by the village with the church. From this village, situated on a rather high elevation, the river and its bed was well covered by fire to the north as well as to the east. The church, being in front of all the other buildings and of good height, served as an excellent observation point as well as an excellent firing point. Here were placed machine guns and anti-tank guns. The northeastern part of the village contained 3 or 4 firing positions (machine guns and mortars) and 1 or 2 trenches. The road was completely covered by fire from weapons placed in the stone buildings. The village thus provided a strong resistance. It is therefore evident that the Germans, relying on fire power, did not construct obstacles here; the approaches being covered by entrenched machine guns and detachments.

To the northwest this village joined a second village; and still further to the northwest was Hill No. 190. From the second village the left bank of the river was covered by flanking fire. The combination of fires from both villages, as well as from the buildings on the right, gave excellent cross fires in front of the position. The firing units in position in the second village and on Hill No. 190 were considerably smaller than those in the village with the church. Therefore, the approaches to the former were blocked by a double-staked wire fence; so that the village and the eastern slopes of Hill No. 190 formed an auxiliary position of the defense.

The buildings on the right flank were located on an open place and easily visible from the opposite bank of the river. Here the fire power was very low, but that

*Red Army.



Red Army men dislodging Germans from a Ukrainian village.

which was there gave flanking fire along the left bank of the river and cover for the obstacles in front of the position which were especially strong. The defense here was based on the obstacles. The wire obstacles consisted of a 3 to 4 stake fence and a mine field containing high exposives.

In the system of fire it is characteristically the case that the blindages (rest dugouts) and dzoti (dugouts or firing points) in the forward positions are covered successively by those in the rear. Therefore, in seizing a dzot in the forward positions our troops are immediately subjected to fire from the dzots located in the rear.

On our sector the Germans have organized this complex system of fire in depth. Especially effective within the system of fire is the proper use of terrain and small villages.

Red Army men dislodging Germans from a village on the Western Front.

Red Army men attacking a village on the Western Front.

The defensive structures are always carefully camouflaged, being blended with the surroundings, both from aerial and ground observation. The camouflage of real gun positions is aided by the construction of false ones out of snow; and from the general vicinity of these the Germans fire periodically. The Germans also use small hillocks as firing positions.

The Germans attach great importance to the use of small villages in their defense. This is quite clear why, for in a village are rows of buildings which can be used in defense with considerable effect and with the minimum loss of time and means.

When our troops break through the defensive position, destroy the forward line and penetrate further. The Germans make new defensive works in a short time; principally dzoti of light construction. Herein lies the flexibility of the German defense.

A dzot (dugout or firing point) is usually simply a hole in the ground, 4 x 6 meters by 1.5 or 2 meters deep. It has a cover of 2 to 3 layers of beams which are 15 to 20 centimeters in thickness. On top of the beams is placed a layer of dirt .5 to .7 meters thick over which is poured water. A layer of frozen earth will withstand shells up to 155mm.

The location of trenches and dugouts is determined by the relief of the terrain. Sometimes they are arranged in checkerboard fashion. Between blindages are constructed a large number of dzoti, including false ones. In the dzoti are relays of automatic riflemen and machine gun men, usually 15 to 30 per cent of the detachment; the remainder are in the blindage.

The construction details of the dzoti and blindages were obtained from prisoners captured in this sector of the front at the end of February. Each section has 1 or 2 blindages where the men rest and 1 or 2 dzoti connected with tunnels or trenches cut into the snow. A blindage is a hole in the ground 2 meters deep and 6 x 4 meters in cross section and lined with boards. It has a timber roof which is covered by .5 meters of earth soaked with water. A dzot has a covering of 2 layers of beams for a roof and are usually 50 to 100 meters apart. In front are barbed wire entanglements and mines.

Sometimes mine fields and high explosive charges are combined with a wire fence. They are of simple construction—to the beams of the dzoti, which are frozen to the ground, is fastened a wire hook or ring to which is attached the barbed wire.

The Germans make extensive use of anti-tank (T-35) and anti-infantry shrapnel mines with instantaneous or delayed action. The spirals made of smooth wire, usually used in combination with mined obstacles, are of little hindrance. Covering the spiral of the mine and entwining in it the wires attached to the fuses of the delayed action bomb, the Germans try to hinder as much as possible the task of demining a mine field.

No matter how carefully the German defense has been planned, it is always possible to find a vulnerable spot. In order to find such places, every commander must be able to determine the system of fire used, the character of defensive works and the obstacles of the enemy, and also the method of their use during combat. This is attained by careful reconnaissance, attentive study of the terrain and constant observation of the enemy.

Russian Cavalry Leads Timoshenko's Offensive

*By Brigadier General H. S. Sewell**

RUSSIAN communiques of the last seven months have made frequent mention of the good work done by their cavalry. When the counter-offensive opened last October, it was the mounted arm which played such an important part in turning the Nazi position at Rostov, and later it earned distinction in the fighting on the Moscow front. When winter closed down and the plains of Russia were covered with snow, the use of horsemen in coöperation with ski troops was mentioned in almost every advance made by the Red armies. With the coming of spring, cavalry activity increased, and they are now leading the offensive which is being directed by Marshal Semyon Timoshenko, Russia's most distinguished cavalryman.

Russia is the only country which has a great force of cavalry. All the Western European powers reduced the numbers of their mounted troops during and after the First World War.

In 1939 the cavalry strength of Germany was 2½ divisions, of France and Italy 3 divisions each, and of England 4 regular regiments and 1 yeomanry Division. Russia at that time had 32 horse divisions and 2 independent Brigades, and Poland had 15 Brigades. The present strength of the Russian cavalry is said to be even greater. Germany also may have increased the numbers of her mounted men, but it is not possible for Germany even to approach the Red army's strength in this arm, which by now may well be from 35 to 40 divisions.

Cavalry is considered an important offensive weapon in the Red Army and is well equipped to carry out that rôle. The retention of this arm of the Russian forces has not been for any reason of sentiment or tradition; the Russian staff are too realistic to be influenced by such reasons. They have modernized their mobile forces in the way best suited for fighting in the vast areas with poor communications in which they have had to operate.

In Russia during the spring thaw, no force can move anywhere off the roads except the cavalry; roads are few, and in the snow they have shown how they can work with fast-moving ski troops. In summer, horses can, to a great extent, live off the land and they are not dependent on supplies from the rear as is a tank, which cannot move without gas.

We have no knowledge of the present organization of the Russian Cavalry Division. The Soviet Cavalry Training Manual for 1933 laid down the strength of a division as 20 squadrons, 10 batteries of artillery, 3 strong tank units, armored cars, signals and engineers, a total of 3,701 men, 3,533 horses and 42 fighting machines.

Machine guns are carried on light carts drawn by 4 horses and every eight men in a squadron are equipped with a light machine gun or a grenade thrower. This was the organization of nine years ago, and it will have been kept up to date in weapons and equipment, particularly in tank fighting equipment.

Cavalry on foot can carry out all the functions of infantry, and their mobility when mounted, usually enables them to choose the direction from which to make their attack. They are able to cover great distances with a minimum of fatigue. The rider is at advantage in this respect compared with the foot soldier and he travels almost as fast, and much more comfortably, over broken ground, than the truck-borne infantryman.

*Brigadier General H. S. Sewell began World War I as a cavalry captain and at its conclusion was one of the youngest generals in the British army, in command of the First Cavalry Brigade. He is recognized as one of the leading commentators on military history and strategy.

Cossack machine gun carriages advancing to new firing positions on the Crimean Sector.

Soviet junior lieutenant giving Cavalrymen an assignment.

Soviet Platoon in Action

FOLLOWING the German reversals during December, 1941, many small Soviet cavalry detachments were operating in the rear of the German lines. One of these detachments, probably a reinforced troop, under command of Lieutenant "K" was acting as the left flank security detachment of a larger Soviet force.

This unit, moving up from the south where the main Soviet force was located, occupied the village of DOLIDOVA in the afternoon. The German withdrawal was expected to pass through the village but the lieutenant had no other information concerning the strength or location of the German forces. He decided to remain in the village for the night and send out reconnaissance patrols.

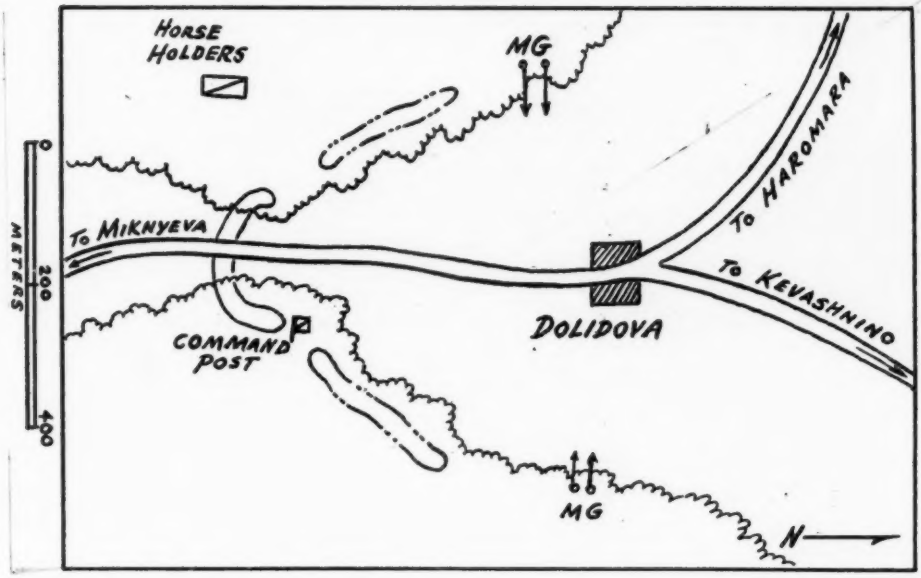
Local security outposts were first placed on the main avenues of approach to the village and in addition a system of roving patrols was established connecting the outposts. The lieutenant then dispatched the largest of two patrols on the road to KEVASHNINO under command of Sergeant "H." This patrol had the mission of reconnaissance in the vicinity of KEVASHNINO and to the northwest and of destroying any enemy patrols encountered. The second and smaller patrol moved out on the road to HAROMOVA with the mission of reconnaissance to the north and northeast in the direction of HAROMOVA.

No action occurred during the night but in the morning Lieutenant "K" received a message from Sergeant "H" stating that he had encountered an enemy force near KEVASHNINO consisting of a troop of *cavalry* and a few tankettes. The German force was reported moving on the road to DOLIDOVA and about eight kilometers north of DOLIDOVA. Lieutenant "K" estimated that the enemy should arrive at his position in an hour or an hour and a half.

The lieutenant decided to leave the village and take a concealed position in the woods, which were about 300 to 400 meters south of DOLIDOVA, hoping to trap the enemy as he emerged from the village. He distributed his force as shown on the accompanying sketch, blocking the road with one platoon. His machine guns were placed on the extreme flanks to secure the maximum flanking fire on the enemy. The individual troopers were also equipped with antitank grenades and the machine guns with armor-piercing ammunition.

At noon Soviet scouts observed four German tankettes and two infantry companies nearing DOLIDOVA on the KEVASHNINO road. This enemy force delivered heavy fire into the town before entering. About ten or fifteen minutes later the *German cavalry* appeared on the same road with an advance guard of eight troopers. This cavalry marched through the village toward the Soviet position. The infantry and tankettes remained in the village to cover the advance.

Lieutenant "K" allowed the enemy advance guard to enter the forest and held his fire until the head of the



main cavalry column reached the woods. At this moment he gave the signal to fire. The Germans were trapped by the platoon covering the road to the south and flanking fire from the woods on either side. After suffering fifty per cent casualties in horses and thirty per cent in men, the Germans left their horses and retreated to DOLIDOVA. Owing to still superior enemy forces the Soviets did not pursue.

The four German tankettes and a company of machine guns advanced on the Soviet position and opened a heavy fire supported by the remaining German cavalry. The Russian forces quickly withdrew to the village of MIKNYEVA further south. The Germans did not pursue.

The Soviets believe that this successful cavalry action against a superior force was due to good reconnaissance and a correct decision as to where and how to give battle to the enemy. The only criticism which was made by the Soviets was that Lieutenant "K" withdrew sooner than required.

Advanced observation post on the Southwestern Front

Training Cossack Reserves

By Efim Borosh★

IN ancient times people told a legend about a hero who became invincible the moment that he touched earth. This simple and wise tale comes to mind when one walks along the quiet green fields across which runs the wide strip of the Great Ferghana Canal.

Thirty-four horsemen, spurring thin legged mounts, emerge from the village. They wear padded black and orange colored robes and bright kerchiefs over black embroidered skull caps. The odor of dust, raw hides and horsesweat that accompany cavalry marches, hangs over the peaceful land. Horsemen reach well rammed grounds where they dismount and form into ranks holding the horses' bridles.

The day before yesterday they steeplechased across fields. Yesterday they moved against the current along the sticky bed of the small river. Today Yakubuzhan Basarov is in command, teaching collective farmers the rules of the Uzbek war game. This game was born many centuries ago among a warlike tribe. Hundreds of horsemen would gather in the steppe watching impatiently the man who held in his hands the carcass of a black he-goat. The he-goat was tossed upward and the horsemen rushed to it in an effort to catch it in flight. The lucky fellow who got hold of the carcass then galloped away into the steppe! His rivals deployed in a semicircle and gave chase. Sometimes one of them would overtake the man with the carcass, but being an agile horseman he would glide beneath his horse's belly and escape danger. Sometimes when a horseman, stronger and more agile, wrested a carcass from the one who had caught it, he was sure to be pounced upon in turn by one still stronger. He would then press high heel against his stirrups, while the rival, seizing the carcass, would try to pull it away; but he would lie down sideways, stretched across his horse, and the hand of the pursuer would remain suspended in the air. Then he would put all of his force into his bent right leg, which held the carcass like iron pincers, and after overcoming numerous obstacles would stand before judges claiming victory.

This game was handed down from generation to generation. It developed the agility and grit of the men, toughened their muscles, hardened their will, and turned a horseman into something almost inseparable from his horse.

This game of Uzbek heroes came down to our time, and last winter Red Armyman, Armed Aliev, using one of its tricks, brought a live German officer to the headquarters of his unit.

Bazarov now teaches collective farmers the tricks of this game. Holding a restraining hand on his prancing steed he stands in the center of the grounds; tall, bronzed, and looking like Ling, the warrior of Tamerlane's times. A yellow band around his black skullcap gleams in the sun's rays. On the ground, instead of the carcass of a he-goat, there lies a hundred twenty-pound sandbag. Bazarov spurs his horse, whirls over the ground, gallops past the sandbag, lifts it with his right hand, simultaneously raising his right leg prepared to press down.

Eyes glitter as they watch the commander. Only military discipline keeps them in ranks, holds them from flinging themselves in pursuit of Bazarov in order to seize the bag in the noble duel. They stand like statues, their hands resting on the hilts of daggers whose well aimed blows will shortly be felt by enemy scouts.

Explaining what is required, the commander throws down the sandbag. At word of his command the men impetuously get into their saddles and, almost lifting their horses from the ground, they whirl one after another bag, lifting with their right hands, while in full gallop they make a circle around the grounds and return to their places. Yellow dust raised by the horses hovers like smoke in the air. The whinnying and stamping of horses and the guttural shouts of the horsemen disturb the stillness of the spring morning.

This goes on for two hours, then the exacting commander demands that his men repeat the performance until they achieve perfection. Steam rises from the rumps of sweating horses. Bright kerchiefs wrapped around skull caps darken with perspiration. A hundred and twenty pound sandbag lifted by strong arms lands beneath the horseman's bent knee before he stops.

When the collective farmers have been trained, they go back to their regular jobs working the farms until the time when they are needed.

This is the story of how one collective farm in Uzbekistan, a thousand miles from the war front, prepares its reserves of manpower, for the day when they shall be called for war duty.

★Soviet News Correspondent.

★ ★ ★ ★

Red Cavalry Has a Lesson for Us if We'll Heed It!

(Exclusive to the Cavalry Journal)

Russian Partisan Warfare Coordinated With Red Army

By Battalion Commissar Volkov

RUSSIAN *Partisan** Detachments are operating in ever closer coördination with the Red Army, and by blows skilfully dealt in the enemy's rear at the right moment, do much to further the advance of Red troops. This coördination is becoming more and more definite, effective and *systematic*.

One *Partisan* detachment recently partook in an attack on the enemy's fortified center in conjunction with regular Red Army troops. A plan of joint action was drawn up beforehand. The *Partisans* were to attack the stronghold from the rear, and Red Army troops from the front. At a given signal, guns, trench mortars and machine guns opened fire. *Partisans*, approaching from the west, penetrated the village which was the key to the German defense. Their appearance came as a complete surprise, and the dumbfounded Germans were unable to put up any serious resistance. Forty minutes after the attack began *Partisans* sent up three red rockets as a signal to the commander of the Red troops that the village was in their hands. Meanwhile, troops attacked the fortified center at another point, and the operation was a complete success.

On one sector of the Southwestern Front, Red troops were attacking furiously, and the retiring Germans had only one railroad line by which they could bring up reinforcements and supplies from the rear. This line was blown up by *Partisans*, and a train of thirty cars was derailed and seventy Germans killed.

At another time a German battalion proceeding toward the Front was unexpectedly attacked by a *Partisan* detachment commanded by Sharikov. After a short but fierce engagement, dozens of German corpses strewed the road, and the *Partisans* made off with considerable booty.

*Guerrilla.

Destroy and Harass Nazi Headquarters

Nikitin, who before the war was an agronomist, is now head of a *Partisan* detachment which has become a terror to German headquarters staffs. Acting on instructions from a commander of the Red Army troops, Nikitin's detachment destroyed German communications on a sector being prepared for a counterattack with the result that the direction of the German troops became impossible. His detachment also wrecked the headquarters of several German units, cut thousands of yards of telephone cable, destroyed two headquarters wireless installations and captured many valuable orders and documents of the German command. Among them, incidentally, was one offering a large reward for his own head.

Nazi Tanks and Motor Vehicles Victims

German mobile units moving along the road between two cities in the Orel region were repeatedly attacked by *Partisans*. On one occasion an enemy column was moving toward the Front headed by seven tanks and followed by infantry mounted on motor trucks. Veryovkin, commander of the *Partisan* detachment, decided to bar their path and detailed a body of tankfighters to do this job. They hid in bushes by the side of the road, and when the tanks approached they hurled grenades and fuel bottles at them. Not a single tank got through! In addition, twelve trucks were destroyed and about a hundred Germans killed by well aimed grenades. This action was of considerable aid to Red troops operating in this area.

Another *Partisan* detachment was requested by the commander of the Red Army unit to guard a high road in the vicinity of a large factory. This detachment annihilated three German reconnaissance forces, dispersed an enemy column of motor trucks and carts carrying

ammunition, destroyed nine tanks and over a score of truckloads of infantry, and captured the headquarters car in which valuable documents were found.

Partisans Increasing in Force and Effectiveness

Partisans have acquired great experience in fighting. The number of detachments has grown considerably as their military efficiency has improved. They now control whole villages, towns and districts. What is known as the "Partisan Land" is steadily extending its boundaries. This is a source of deep concern to German forces of occupation, and they are trying to stem this expansion by increased severities and brutalities towards the noncombatant population, but without success. Activities of Soviet Partisans continue to become more energetic and determined.

Destruction of Nazi Railway Trains

By V. Arefyev*

TRAFFIC on main railroad lines connecting the German rear and front has been badly disorganized as a result of activities by Orel *Partisans*. These raids by *Partisan* detachments, causing frequent derailments, have compelled the Nazis to maintain a garrison numbering between two and four hundred at each station on their supply lines to the front.

At present the Germans use the line only in daylight for three or four hours a day. In the early mornings, before letting trains run, large squads of German soldiers are first sent to examine the tracks. They are followed by *mounted gendarmes,* then a trolley, and finally an armored train which keeps firing machine guns, all the while combing the forest. Only after these precautions have been taken are the accumulated trains allowed to pass. Then traffic is again suspended for the rest of the day.

All of these protective measures, however, do not avail the Germans against *Partisans*. The other day a German patrol, while examining the track in the morning, found thirty kilograms of TNT buried beneath it. The German soldiers began calling for other patrols, hoping that there was sapper. "Russ mine! Russ mine!" they called.

Partisans who watched them from ambush exploded the TNT, destroying the entire squad of Nazis. Later at night came the *Partisan detachments,* armed with machine guns and trench mortars. They again mined the track and laid ambushes in three places. The next morning the Germans, because of their urgent need, decided to send the train through without again examining the road. As soon as the train, running at high speed, appeared, the explosives were set off and the train loaded with tanks and motorcars was derailed. The *Partisans* opened artillery and trench mortar fire at the scene of the wreck, and not until the train was on fire and all cars smashed did they withdraw to the forest. Traffic was disrupted for two days.

That same night other *Partisan* detachments wrecked troop trains on the branch line leading to the German front. Thus, in the course of one day *Partisans* put out of commission about one thousand Nazis, fifty tanks and motor cars, and five railway cars.

*Soviet correspondent on Central Russian Front.

Having captured part of a village on the Southern Front, Red Army men are engaged in driving Germans from the remainder of the houses.

Cavalry Still Potent Weapon Soviets Prove*

By Walter Kerr

MOSCOW, May 24 (Delayed).—Probably no arm of the service has undergone such a radical change on the long Eastern Front during the fall, winter and spring fighting, as the Red cavalry.

Not only has the horse not given way to the tank, truck and armored car, but the Soviet army has increased the number of cavalry divisions, *and the Germans for the first time in this war are using large cavalry formations this spring.*

And that does not mean cavalry in the sense of a lot of vehicles and a lot of horses. It means that horses are carrying and drawing plenty of fire power supported, when the situation requires, by tanks and planes.

I talked today about the cavalry in this war with a soldier who knows as much about it as anyone. He is a Cossack from the Urals, Major General Victor Timofeivich Ubukov. General Ubukov, 41, fought here in the civil war after the revolution, and he knows his business.

Used in Big Formations

General Ubukov told me that the Red army found the Germans for the first time using cavalry this spring in formations as large as a brigade or a division. They have been active on the Central Front and in the direction of Kharkov, and he said that I could expect to hear this summer of an engagement between the opposing cavalry forces. He seemed to enjoy the prospect.

The cavalry leader told me, too, that cavalry divisions had doubled their antiaircraft and artillery and had increased the number of antitank weapons during the winter and spring. He said that the cavalry hits harder today; though it hit hard enough last summer, fall and winter.

General Ubukov also told me that a saber charge wasn't a thing of the past, though, of course, it only could be used in special circumstances. And he told me that a modern cavalry division was not afraid of a tank division.

The general made clear that the basis of theory on the use of the cavalry in the Soviet Union was its use in large formations from a division to larger formations equipped with modern weapons and with air squadrons in support, fighting on a front of their own and not attached to the armies.

Only after understanding that, he said, was it possible to understand what the cavalry has accomplished here. He thought that the trouble with the cavalry in Poland and France was its use in small formations, dispersed about the front and often handicapped by too many vehicles. The Soviet cavalry avoids vehicles if possible.

Example of Power

One example of the cavalry's striking power that he cited occurred last year near Pervomaiks, in the Ukraine, when Lieutenant General Pavel A. Belov's First Guards cavalry corps, ran into a German motorized force in March. It went into battle directly and captured the town of Balta. It made its way to the rear flank of the German Nineteenth motorized division and the 293d and 297th infantry divisions. The three German divisions were routed, their counterattacks repulsed and their loss boosted to 4,500 men by the use of antitank guns.

That was an example of the cavalry's striking power in an engagement. An example of the cavalry on the defense is the battle between a force under Major General Kruchonkin, defending the banks of the River Ikva last June 26 and 27, and the German Eleventh armored division. The attacks of the Nazis were beaten off, the enemy leaving 60 machines destroyed on the field, together with the personnel of two infantry battalions and a number of guns. That cavalry force had as its mission the delay of the enemy and then a withdrawal.

As the war progressed, the Soviet cavalry learned to increase its fire power, still sticking to the principle of not using vehicles when they might interfere with the mobility of the horse units. An example of the cavalry in an attack was last November's counter-offensive, which liberated the important city of Rostov. The city had been seized when a German armored force broke through the narrow front, but made the mistake of leaving its north flank wide open.

The attacking Soviet cavalry composed of several divisions and supported by light tanks and air power, struck swiftly and routed the Nazi 16th tank division and the 60th motorized division. In that instance, the cavalry followed the tanks and, behind a curtain of fire, charged with drawn swords.

"Mounted saber charges," the general admitted, "are rare, but they are still made. At the end of 1941 Major General Lev Dovator's corps charged into the German Sixth Army west of Moscow and destroyed a whole infantry regiment, killing 2,000 officers and men.

"Cavalrymen in that engagement captured over 300 vehicles, 100 cannon and many machine guns and other weapons. They even routed the headquarters of the Sixth Army, and prisoners said that a rumor spread that 100,000 Cossacks had broken through. They were Cossacks, but there weren't 100,000 of them."

*By courtesy of *The New York Tribune.*

Combat Intelligence For Armored Units

By Major Karl L. Scherer*

ALTHOUGH our Field Manuals express it in other terms, *"Go where the going is easy,"* is a (and some say *the)* basic principle of the armored attack. Actions of armored units, made with this basic doctrine in mind, have habitually succeeded. Disregard of it has habitually resulted in terrific losses. *"Go where the going is easy,"* is a very pat saying, of such obvious truth, that there must be some reason why it is not generally followed. We habitually disregard it.

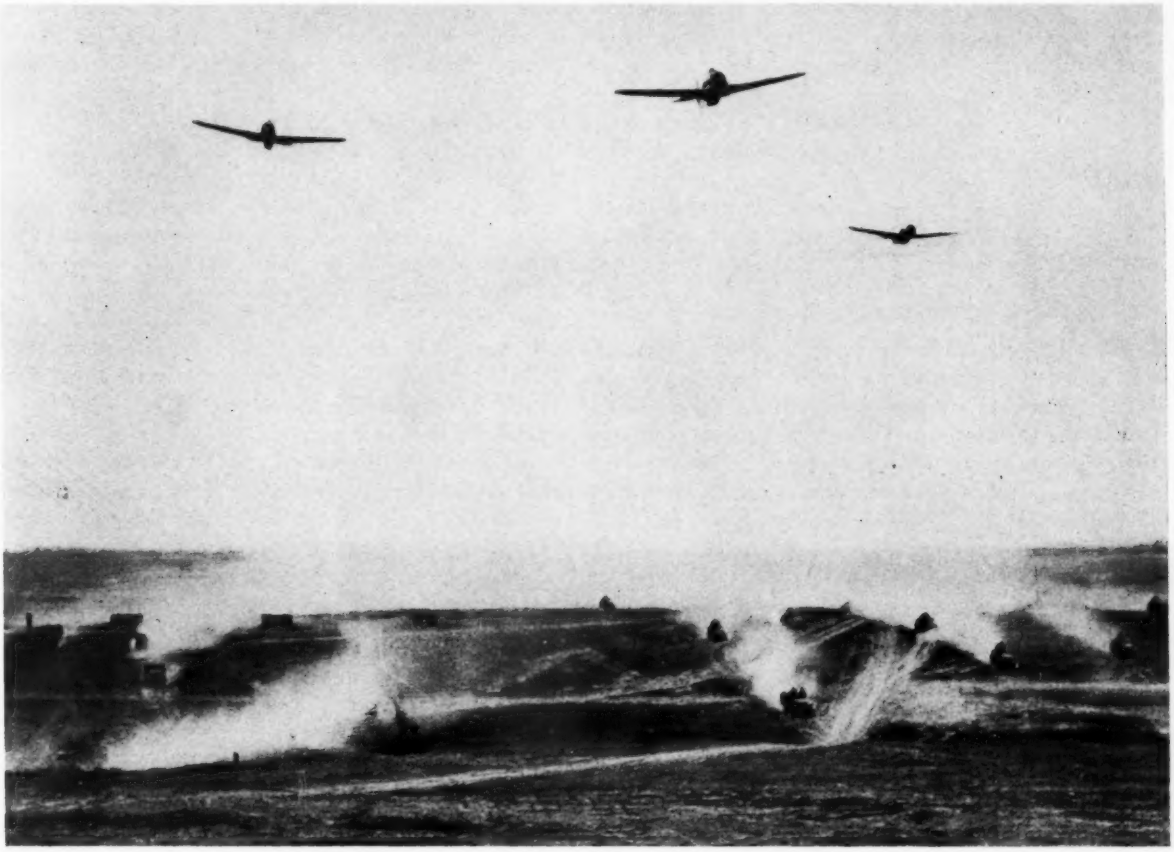
In the final stage, what is the margin of victory in the armored attack—maintenance, fatigue, lack of resourcefulness, terrain? No, in short it is combat intelligence. Everyone works his heart out to advance—to accomplish his mission. The multitude of unsung heroes hit the hard spots and bounce, while a chosen few, and usually a *very* few, find the soft spots and are able to advance. Unbelievable as it may seem, it is always the small element, one single platoon of a regiment which finds this soft spot and gets through, and never the bulk of the regiment or even battalion. To repeat, then, the margin of victory in the armored attack is combat intelligence. By transmitting information of soft spots, the subordinate tells his commander the most important information that the latter can receive. In this way only can the entire command accomplish the mission.

It may clog the radio net to have such messages as, *"Advanced unopposed CENTER to BARN to SMITH,"* coming in from the 2d Battalion, when the advance guard company has seen nothing but one .75 all day. But it will mean far more than, *"Advance opposed by AT guns every 800 yards CENTER to BARN,"* in the eventual accomplishment of the regiment's mission—a deep penetration into vital hostile rear installations. This deep penetration via unopposed areas is perhaps the most powerful of all weapons in the hands of armored units. For this penetration presents a threat, pure and simple, to the hostile forward installations and will cause enemy withdrawal without even the benefit of actual contact.

If you do hit a soft spot, be sure to get that information back. If you don't, the entire outfit will never have a chance of reaching first base, its mission cannot be accomplished. Had they thought your command could have accomplished the mission alone, they would not have bothered to send the rest of the outfit. The

*6th Armored Division.

Company commander receiving radio message in interior of tank.



Speedy armored cars test the strength of the enemy's positions.

reason we never "Go where the going is easy," is that we have failed to emphasize the importance of the soft spots; we have failed to demand the immediate dissemination of information of these soft spots. Until we have rectified these failures, we will continue to try to do it the hard way, or rather, the impossible way.

Fire and Movement

No mention of Armored Force tactics, these days, is complete without a reference to fire and movement, and actually no armored attack is successful without an application of it. This has been emphasized for the platoons to such an extent that they are finally actually working by fire and movement. The larger elements are obviously still working on some other basis. This doctrine has worked out so well for the platoon, however, that it would do well to examine it, and to try to apply it to the larger commands.

Basically, fire and movement is simply the combat intelligence. Joe's section advances and encounters an AT gun. Joe indicates the gun to Pete by fire or signal, and has Pete run over the gun from a different direction, while he fires from his own position. Joe has met opposition which he cannot handle economically himself, and he gets Pete to help him. Joe would have been a dead hero had he barged in alone against greatly superior odds. Applying this same principle to larger units, it would certainly be more desirable for the platoon to call upon its company commander, or a company upon its battalion commander for assistance, rather than to barge in when opposed by greatly superior strength.

Referring again to the larger commands, we run into the question of time. No longer can the teamwork be accomplished by a simple burst of tracer or a flag signal. Between the higher units, the request must go by radio normally—and as such is an official admission to your commander that you need help to accomplish a job economically. This seems a terrific confession of weakness or lack of boldness; and it also conflicts with the venerated motto, "Hurry up and Wait," because such a procedure takes time. It may even take thirty minutes to go back to your company commander, if your radio is out, to tell him of the situation.

Suppose that you do advance, and you do take it on the chin. In many cases you will get through; the opposition may not be as tough as you had guessed. If your estimate was correct, however, if you are up against greatly superior strength, your motto soon will be, "Hurry up and wait for Eternity."

Just as certain opposition warrants fire and movement for the platoon, comparably greater opposition

(and the degree is to be decided, as always, by the commander) will warrant fire and movement for the larger elements. If your radio works, use that; lacking the radio, send a messenger; lacking a messenger, leave some tanks in observation and take another combat vehicle back with yours to your commander (the British never send one vehicle on a courier mission), so that you may tell him the situation exactly, and assist him in using the terrain you have already covered to the best advantage.

Send the Message

What happens when you decide to take your chances, and either the remnants of your command get past the strong opposition or your command maneuvers around it with negligible loss, and you go blithely on your mission without informing your commander? He advances behind you, trusting that the path is clear, and suffers heavy losses. Furthermore, new on the scene, he cannot profit by your solution of the situation. Doubtless, he will repeat all of your mistakes. On the other hand, it is very doubtful if he will find the same soft spot, without considerable reconnaissance.

All of this does not sound the death knell for surprise and boldness.

For success in the problem immediately at hand, surprise and boldness are, of course, prerequisites for armored action; but they must not exclude the use of all information in the possession of elements of the command. Only by the use of all of this information can the mission of the entire command be accomplished, can the high casualty rate in armored vehicles and personnel (a rate, which apparently in this present war decimates the command after every engagement) be kept down to figures for which we can supply replacements, considering the modest surplus of trained armored troops. In any case it is imperative that you get the information of the strength of the opposition to your

Armored scout car crossing a stream.

Reconnaissance battalion advances through the woods.

commander; otherwise no one can profit by your glorious unsung death.

Reports are a pain in the neck. The necessity of certain reports in combat can be explained if you will put yourself in the position of the commander rather than that of the commanded. You, as company commander, feel much put upon when the battalion commander asks you for your location, strength, and opposition encountered. However, just five minutes beforehand you had been trying to get the very same information from one of your worthless platoon commanders, because it was vital for your decision for your next move. Perhaps that platoon hadn't moved for the last three hours, and the platoon leader thought that you would have realized that the situation was unchanged, what with no bad news coming in from him. Just the same, if he would only send in a positive or negative report once in a while, you could devote some of your time and thought to your other platoons.

What, Where, and How Much

Reports are necessary, even in battle, and here's what you have to get from your subordinates—and conversely what your superior has to get from you—in order to employ that element with any understanding. There are really only these three things: *what* is left, *where* it is, *how much* (or how little) opposition. The message from a section leader to his platoon leader—*"Two AT guns 500 yards south of us,"* means nothing to the platoon leader if the section has been forced to abandon its vehicles. Obviously the platoon leader cannot properly support a section making this report when he assumes both its vehicles still in action. Likewise the message from a platoon to its company commander—*"Lost 2 tanks—remainder held by strong AT gun fire"* —does not tell the company commander where he can expect the enemy guns to be located, so that he may knock them out by a maneuver of his reserve platoon. In the same way, a message from a company to the battalion commander such as—*"My 12 tanks 1 mile west of BAKER. Held up"*—does not give the battalion commander sufficient information to decide whether to, or how to support this company.

Terrain

No one with the slightest experience with the movement of armored vehicles can fail to be impressed by their sensitivity to terrain. Each new development of armor and weapons has actually only increased this sensitivity. These new developments do not warrant a change of general tactical armored force doctrine; they do not permit us to "go down the alley" against strong AT opposition. At the same time, they do make "go where the going is easy" a matter of more careful advance planning. With the heavier, less mobile vehicles that we are now getting, terrain becomes progressively a more important factor in our "opposition." Report of suitability of terrain for armored movement in the past

has been considered a superfluous, academic, one. However, when an armored advance is opposed—and when can the enemy afford not to oppose this threat in strength—movement across country is the only economical method of advance. This does not preclude the use of roads in the advance to contact; but after opposition is met on a road, continuing on that road to see if opposition is really organized in depth will result in terrific losses per mile of progress.

There are two requisites for maneuvering around, for "by-passing" such hostile opposition, after it is met for the first time. One is advance terrain "planning"; the other, early report of terrain suitable for tank movement. No matter how small the command is, the commander must "plan" his terrain in advance, if he is not to lose his entire command, one by one, butting up against a stone wall of opposition in depth.

In this advance planning, he must consider three factors. First, he must have a marked map of the main roads, crossroads, and stream crossings which the enemy may use for movement or for defense. Second, he must expect to be denied any or all of these terrain features. Third, he must have a map, ridge-lined to show where cross-country movement will not be impeded by water courses. Armed with this knowledge in advance he has one of the requirements for cross-country movement. The second is, of course, verification of his map study, by reconnaissance—reconnaissance paralleling the elements which are on the main route of advance, reconnaissance which will not hesitate to report, *"At RED BARN. Good tank terrain,"* as well as *"At AUBURN terrain unsuitable woods."*

Terrain, quite as much as enemy, must be considered as "opposition." And the degree to which present or future terrain opposes our movement is of vital interest to every superior. At the same time, reports of the degree to which terrain facilitates movement are of paramount importance in permitting a superior to "go where the going is easy."

Conclusion

What's left, where it is, and how much opposition are absolute minimum requirements in the line of reports. And as a point of fact, considerably more than actual habitual practice in our armored units. These points of information should be transmitted, unless ordered more frequently, whenever there is a change in the situation which might necessitate an action by the higher commander. Besides these minimum requirements, the following items of information are very helpful in painting the picture for the commander, and should be transmitted immediately whenever possible: supplies, opposition already overcome, friendly troops. However, if you forget all else remember the Big Three of Combat Intelligence as applied to armored elements, and it would be well for all those who have any connection with reports or command to keep as ready reference: What's left, Where, and How much opposition.

And how does the commander fulfill the above demands made upon him, when his attention is already completely taken with the two principal duties of a commander: accomplishing his mission and safeguarding his command? The demands on the commander's

Armored division commander issues orders to his unit commanders who are gathered about the map.

training, ingenuity, courage, memory, and stamina are huge. And no one else can assume the commander's responsibility. However, any way that he can be assisted in his tasks will help to insure the accomplishment of his mission with the least loss. Just for that reason, the Company, for instance, has keymen—a First Sergeant, a Maintenance Sergeant, Mess and Supply Sergeants. With maps, reports, codes, possibly prisoners and navigation—to name a few of the complications which confront even a platoon leader at the same time that he is "commanding" his platoon—he should be helped in all of these matters by a competent man who rides in his own vehicle.

For this purpose, an intelligence agent to assist all commanders down to and including the platoon leader has been designated by War Department Training Circular. This intelligence agent is a man selected by the commander himself, to act as his auxiliary thinker. His principal duty as a member of the vehicle crew is to help the commander fulfill the demands of combat intelligence, while not relieving the commander of final responsibility in that line. He must be positioned in the commander's vehicle so that he may assist the latter at all times. He must be trained, in general, by the Regimental S-2 and in detail, by the commander himself. Obviously he must have above-average intelligence and resourcefulness, as well as have the full confidence of his commander. The turnover of this personnel will be rapid, as such men will normally be next in line for promotion.

The specific duties of the intelligence agent will be the writing of messages upon the dictation of the commander, the plotting of any information on the map, insuring that the superior commander is always aware of his subordinate's situation, encoding and decoding, examining prisoners when necessary, estimating terrain, and navigating. Such a man must be good, must have the confidence of his commander, and must be free and instructed to perform these duties. To be sure, at times it will be more important that he fire a weapon, but he must bear in mind that it is his never-ending duty to assist his commander locate and report immediately on the enemy and the terrain, so that the entire command may go where the going is easy, so that the entire command may benefit from information gained. Combat intelligence is his pricipal concern.

To varying degrees it is true for the platoon as well as for the division, that the most decisive results of armored employment will be gained by launching armored units against vital objectives deep in the hostile rear. We must discontinue the practice of banging away at front-line opposition. Reaching a properly-chosen objective is the all-important thing, and not the destruction of opposition along the route of advance. Other arms are better qualified to accomplish this destruction.

Armored units alone are capable of presenting a strategic or tactical threat. To reach an objective the principle of fire and movement must be applied to the larger units. Some elements must hold while others advance by maneuver, and then take advantage of that route to advance themselves. "Taking out" across country readily must be the solution for advance when held up by opposition: and to do this, terrain must be studied well in advance. Everything points to placing the emphasis on negative information—reports of small opposition and of good tank terrain.

Even assuming that our training, our equipment, and our execution are perfect, there is still one glaring deficiency in our armored technique. We have not solved the problem of combat intelligence. We have not decided what information we want of combat intelligence, what can be the technique of gaining this information, and just how we can use the information, once gained.

When combat intelligence is properly used, then and then only, can armored units be the decisive element in a battle that they were designed to be.

The Place of Guerrillas

There is a school of thought in this country (referring to Britain) which holds the view that after a few weeks' training civilians will be able to withstand disciplined troops in the field. The whole teaching of history appears to be against any such theory—but whether or not this theory is correct today is not material from our point of view. What we have to remember is that the guerrillas, with whom we shall be called upon to deal in the event of an invasion of these Islands, will be picked Regular soldiers specially trained for their work, and that they will be operating in a small country in which there is little room for manœuvre and in which there are countless vital objects for them to attack. It was wisely decided, therefore, that the primary rôle of our Home Guards should be to defend their own localities at all costs, leaving the actual task of defeating and rounding up the invaders to the Regular soldiers. This does not mean that the Home Guards are not responsible for dealing with acts of sabotage and the enemy's behind-the-lines activities in their own areas, but it does leave the actual large-scale fighting to trained and disciplined troops. "Irregular forces, even the most skilful, energetic and aggressive guerrillas, cannot win great wars; but they can make invaluable contributions."—*The Army Quarterly* (Eire).

Air Support of Ground Troops

*By Major Harry Disston, Cavalry**

AIR SUPPORT! Air support of ground troops! How appealing that thought has been to the United Nations since its great effectiveness first became a reality in the operations causing the fall of France. How important subsequent developments proved it to be. Our armies will have it.

On September 1, 1941, there was activated in each of the four air forces an air support command. The other combat components of an air force are a bomber command and a fighter command. All aviation employed in support of ground forces is normally a part of or attached to an air support command.

An air support command is an Army Air Force tactical unit assigned to the direct support of an army or a similar field force. It is commanded by a major general. The air support command is charged with supporting the army ground force with (1) tactical bombardment, (2) observation, visual and photographic, (3) the tactical transportation of troops—para, plane-borne and glider, and (4) aerial command and liaison missions. A typical organization of an air support command is shown in *Figure 1*.

*I Ground Air Support Command.

BOMBARDMENT.

Combined operations of air and ground forces must be closely coördinated. Such operations should be conducted in accordance with previously prepared plans. Although at times, emergencies may require hasty action, the effectiveness of operations under these conditions is materially reduced. In general, the control of supporting combat aviation is retained by higher commanders, who direct the plan of employment. Execution of missions is decentralized by assigning one or more air units to the direct support of a subordinate ground unit for a particular operation or for a limited time. This provides for more accurate and prompt operations.

Missions assigned usually include: (1) Attack on

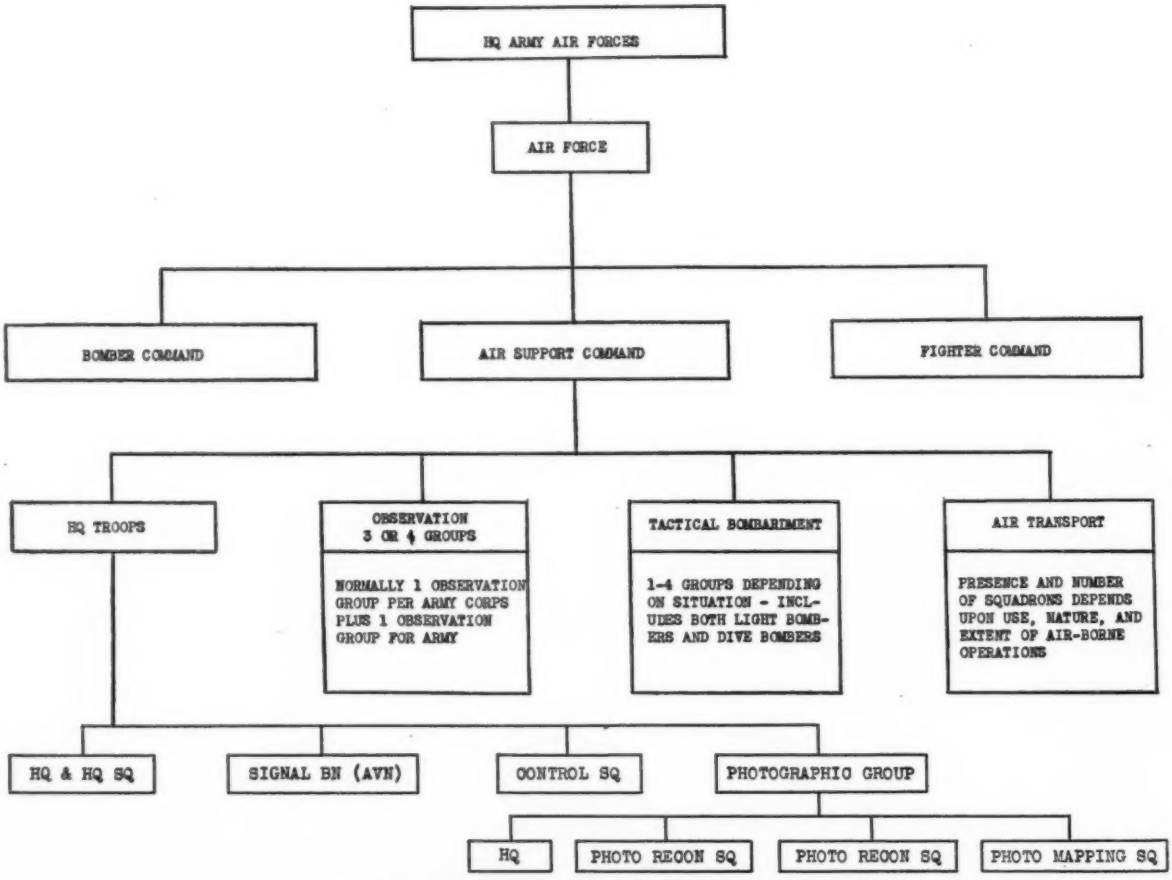
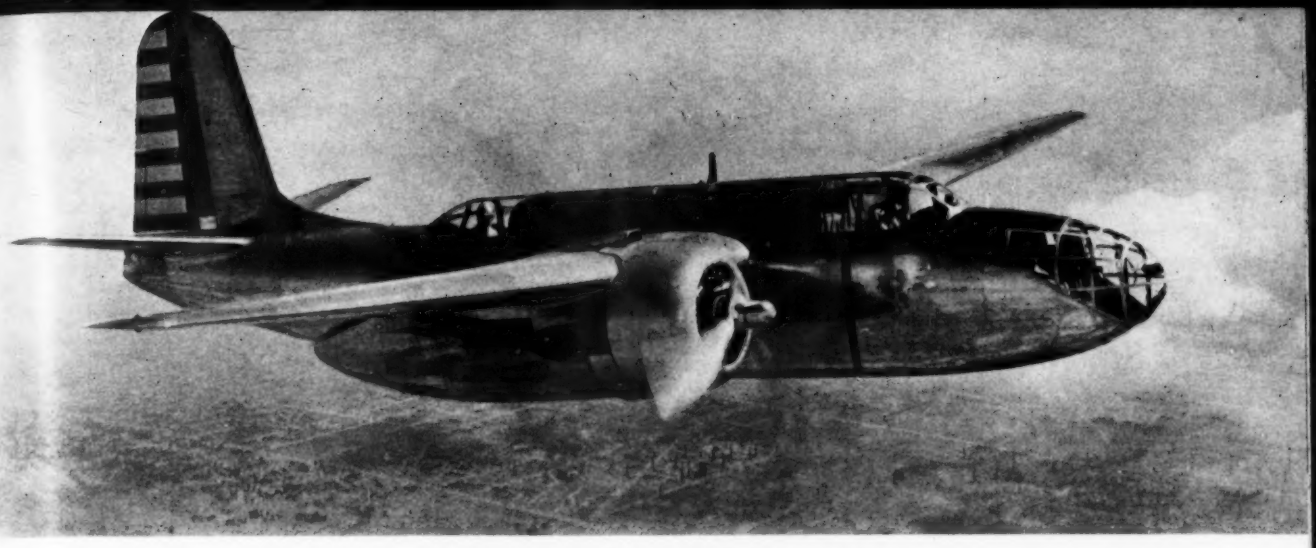

HQ ARMY AIR FORCES
AIR FORCE
BOMBER COMMAND
AIR SUPPORT COMMAND
FIGHTER COMMAND
HQ TROOPS
OBSERVATION
3 OR 4 GROUPS
NORMALLY 1 OBSERVATION GROUP PER ARMY CORPS PLUS 1 OBSERVATION GROUP FOR ARMY
TACTICAL BOMBARDMENT
1-4 GROUPS DEPENDING ON SITUATION - INCLUDES BOTH LIGHT BOMBERS AND DIVE BOMBERS
AIR TRANSPORT
PRESENCE AND NUMBER OF SQUADRONS DEPENDS UPON USE, NATURE, AND EXTENT OF AIR-BORNE OPERATIONS
HQ & HQ SQ
SIGNAL BN (AVN)
CONTROL SQ
PHOTOGRAPHIC GROUP
HQ
PHOTO RECON SQ
PHOTO RECON SQ
PHOTO MAPPING SQ

Figure 1: Organization of an Air Support Command.

NOTES: A group in the air forces is similar to a regiment in the ground forces.



Representative of the type airplane used by an air support command for observation and light bombardment.

defensive organizations, enemy reserves and reinforcements, and hostile mechanized forces; (2) attack on hostile aviation; (3) combined reconnaissance (development of the target) and bombing; and (4) the support of parachute and other air-borne troops.

The selection of appropriate targets depends, of course, on many factors and changes constantly with the situation. Certain guiding principles may, however, be stated. In general, the target for air support should be beyond the effective range of the ground force weapons. It should be sufficiently large to assure the reasonable probability of success considering concealment, camouflage and dispersion. It must be reasonable in the light of the hostile air and ground situation—air support cannot be applied with equal value in all circumstances. Targets must not, of course, be so close to friendly troops as to cause confusion to either the air or ground forces or to include both hostile and friendly forces in a burst, nor should targets be designated where the possibility of a merging of the hostile forces with friendly forces is likely. Targets for supporting bombardment at greater depth include CP's, OP's, dumps, motor and tank parks, lines of communication, bivouacs, assembly areas, etc. *The most important target at a particular time is that target which constitutes the most serious threat to the operations of the ground forces.*

Dive bombing is used effectively against transitory targets of opportunity to the immediate front and especially on the flanks and rear. Armored forces, assembled or in motion, truck columns, artillery in position or in motion, troop concentrations, bridges, pill boxes and the like are obviously good targets for dive bombers. Air bombardment support may supplement and extend the ground forces artillery—rarely would it replace it.

Secondary targets are assigned in each attack mission for use in the event that the primary target cannot be attacked.

In order to protect his own troops and obtain the most out of the support bombardment units, it is essential that the ground commander designate accurately the targets selected. The selection of appropriate targets and a brief and accurate description of such targets affords a profitable subject for study and practice by officers of the combat ground arms.

Observation

The observation groups of an air support command support the ground forces by (1) aerial visual reconnaissance to the front, flanks and rear; (2) aerial photography of critical enemy areas and installations and of bridges, roads and terrain features; (3) observation and adjustment of long-range artillery fire (supplementing the artillery's organic airplanes which do not fly over terrain occupied by the enemy) and, (4) providing liaison airplanes for the use of the commander and his staff and for courier service.

In addition to the observation groups, an air support command normally includes one photographic group. The photographic group performs special missions to obtain data for the preparation and revision of maps and supplements the aerial photographic work of the observation units.

The usual procedure for supporting air reconnaissance is to prepare an air intelligence plan based on the situation; that is, on the ground commander's plans, and the information available from G-2 and G-3 reports. An operations plan to carry out the various reconnaissance missions is then prepared and executed. In this connection, it is interesting to note that a major responsibility of an air support command is to provide the supported ground troops promptly and continuously with air intelligence—both visual and photographic, automatically and without request—based on an intimate knowledge of the situation.

Information obtained through visual observation is immediately made available to the G-2 and G-3 of the supported troops through the air support control plan, to be described later. Particularly urgent information is transmitted from an airplane in flight to ground radio

stations or by drop messages. For example, where targets of opportunity threatening the supported ground units are observed, this information is radioed by airplanes in flight and is engaged, without request, by the observation or bombardment elements, or by both.

The information obtained by the aerial reconnaissance includes: (1) Location of opposing forces and friendly forces with whom contact has been lost, (2) the assembly of troops for attack or counter-attack, (3) movements of trucks and armored vehicles, (4) location of hostile artillery, CP's, OP's, bivouacs, dumps and other installations (in coöperation with and supplementing similar activities by the bombardment groups in seeking out such installations for targets), (5) the condition of roads and bridges and, (6) the progress of battle-hostile resistance and penetrations into our "lines" —where this information cannot be adequately obtained from the ground troops. It is, however, a primary principle that the supporting observation aviation should not be asked for information which can be secured by ground troops. It is axiomatic but frequently forgotten that air observation *extends* but does not *replace* ground reconnaissance.

In order to attain maximum flexibility in meeting the requirements of the supreme commander of the supported ground troops, all of the observation aviation is assigned to the air support command and the air support commander retains centralized control of all observation avaiation within an army, theatre or task force. Normally, observation units will be designated to support specific ground units and so far as practicable they will remain in support of the same units so long as such direct support is required in the execution of the supreme commander's plan.

It should be remembered that in these days of enemy air equality or superiority—in fact, even in the face of minor opposition—prolonged operations and continued air surveillance are almost impossible. Information is necessarily obtained by rapid sorties to definite locations to obtain specific information. Security is obtained through surprise, speed, altitude, the cover of clouds and darkness and such means. Reconnaissance is habitually made at night.

As indicated above, the primary function of observation aviation is reconnaissance—it *avoids combat* by evasive action. Observation airplanes have sufficient maneuverability for this. They also have sufficient fire power to protect themselves if intercepted and sufficient armor to provide protection from ground small arms fire. Supported air observation has a secondary function, *but it is definitely secondary*—the attack of ground targets by gunfire and bombing. This, however, is only undertaken when specifically dispatched on attack missions and only when observation is not required, or in the final phases of an action when observation may be profitably *sacrificed* to fire power.

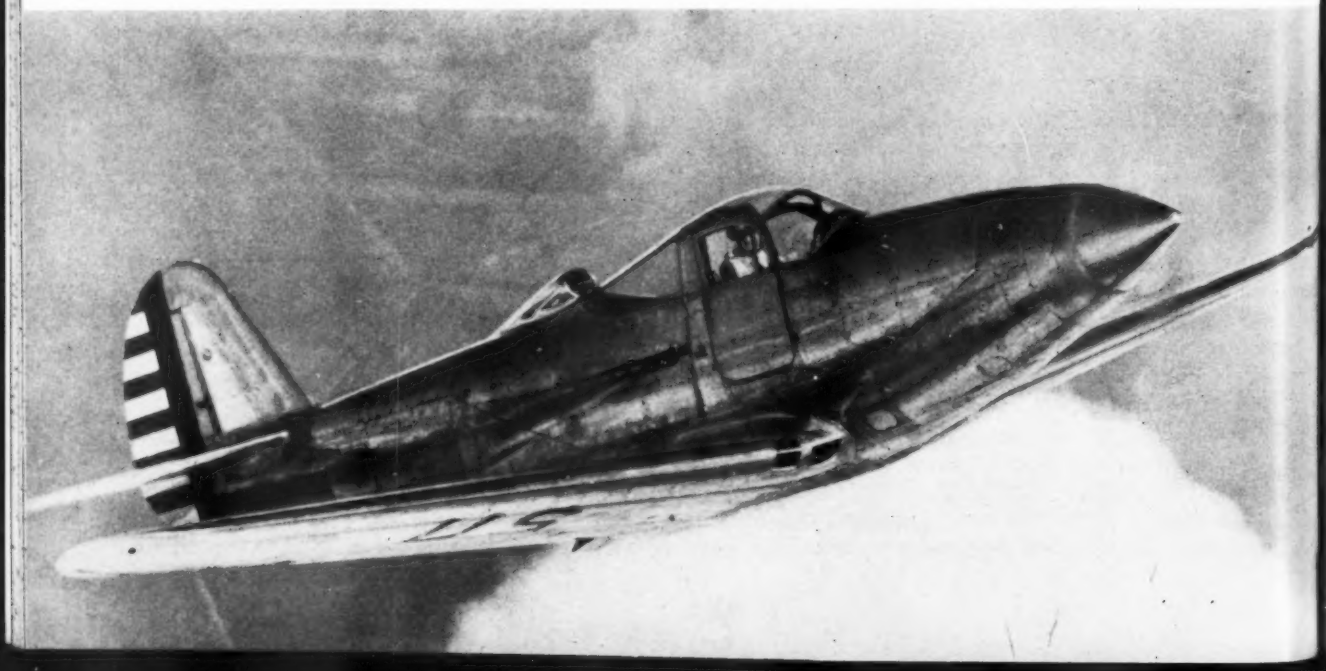
Air Transport

In addition to observation and bombardment, the air support command employs another means to further the ground operations in conformity with the wishes of the ground forces commander. This is provision for the air transport of personnel and their equipment and, on occasions, of emergency supplies. The troops transported are generally those specifically trained, equipped and organized as parachute troops or air-borne troops.

Air Support Control

Coördination of the various activities of the air support command with the requirements of the supported ground troops and provision of effective, rapid and con-

One of the types of airplane included in the observation squadron of an air support command.



Liaison airplane of the type included in the observation squadron of an air support command.

tinuous liaison and communication between the air support command and the supported ground troops is, of course, the key to effective air support.

This is accomplished through an air support control plan which incorporates small units representing the air support commander at the corps and division headquarters of the supported ground troops. The unit at a corps headquarters is known as an air support control; that at a division headquarters as an air support party. When the situation warrants, however, especially where the supported ground unit is assigned a semi-independent mission or has superior mobility, an air support control or party may accompany a brigade or lower unit. This generally applies to cavalry or armored force organizations.

The air support control and air support party differ only in size, the former being the larger. Both are included in the control squadron of an air support command.

These controls and parties consist of one or two officers and a small number of enlisted technicians with the equipment (radio and trucks) to make them self-contained and independent with respect to communication and transportation. In this way the planning and execution of supporting air missions is materially accelerated.

The duties of an air support control and air support party officer include: Representing the air support commander; assisting the G-2 and G-3 sections of the supported ground units; evaluating requests for air support or observation and, taking appropriate action on such requests; maintenance of communication between ground and air headquarters, and the prompt dissemination of air intelligence to supporting units.

Requests for air support by bombardment, originating in a division, are referred to the air support party officer who advises as to the most effective manner of accomplishment, feasibility, probability of accomplishment, availability of airplanes and air crews. The air support party officer refers such request to the air support control at corps headquarters where the request is evaluated in the light of the availability of bombardment assigned to support the corps and feasibility of the mission and its coördination with other missions being flown for the corps or other of its component units. This accomplishes an economy of force and equipment and avoids, to a large extent, duplication. If the corps commander approves the request, the air support control officer communicates directly with the airdrome to order the mission.

Ground Arms Officers

It is interesting for officers of the ground arms to know that they are represented in the headquarters of the air support command. The original organization called for one field officer each from the cavalry, infantry, armored force, field artillery and coast artillery (A.A.) on its special staff. Effective July 1st, the ground arms section of the special staff, as a unit, includes a colonel, a lieutenant colonel and two majors preferably, but not necessarily, from the infantry, armored force, field artillery and coast artillery (A.A.).

Conclusion

The air support command then has three powerful basic means of supporting ground operations from the air—bombardment, observation and transport—an effective, varied and coördinated trio. The extent to which the air support is effective depends, of course, largely on the mutual understanding (and respect) of the ground and air support commanders. The air commander must know intimately the ground commander's plan and he must know well also through personal contact and study, the ground commander's *manner* of operating, on what he places the greatest emphasis, how he goes about his job, the characteristics of his decisions, plans and actions, his views on air support and other such things. The air support commander will then be able, in large measure, to coöperate with and support successfully the ground commander's effort based on a brief directive, his decision, his plan-automatically and with few, if any, requests.

The ground commander, for his part, must know well the powers and limitations of his highly mobile, far reaching, rapidly striking and varied supporting air arm so that its capabilities may be exploited to the fullest while at the same time practicing a proper economy of this valuable force.

Blitz Force of War*

By Lieutenant Colonel Tisheng Yen, Chinese Army

EDITOR'S NOTE: *In view of the revived interest in "Sun Tzu" among American officers, Lieutenant Colonel Tisheng Yen herein gives a revised translation of Part V, one of the most important portions of the old Master's work. It is believed that this new translation contains much from the original Chinese that previous versions have lacked.*

MASTER SUN said: Generally to control a large force is the same as to control a few men: it is only a matter of subdivisions.

That is to control by subdivisions in a pyramidal system, such as the whole armed forces of a nation is divided into Army, Navy, and Air Force, and each one of these in turn is again subdivided into various formations and smaller units. No commander can hope to control directly and, at the same time, efficiently more matters than he can count on his fingers.**

To fight with a large force is the same as to fight with a few men: it is only a matter of forms and terms.

"Forms" means the physical strength and disposition of the force; and "terms" the military terms, in the operation of these bodies of troops from an army down to platoons and sections. Though the forms and terms may be on a larger scale, the principles remain the same.

Whether it is a mimeograph order from G.H.Q., or a word of command from the company commander, troops go into action by the same principle. As to organization, in the army there are the Chief of Staff, the General Staff, the Adjutant-General, the Quarter-Master-General, the Master-General of the Ordnance, and the rest of them to assist "the old man"; and in a company there are the Second in Command, the C.S.M., the Q.M.S., the Sergeant of Arms, and some corporals to help the O.C. There is a distinct similarity in patterns and functions.

To ensure that the whole army may withstand the attack of the enemy and suffer no defeat is only a matter of surprises and frontal advances.

We can see here and at other places that not only Master Sun did not advocate positional warfare in general but positional warfare in defense as well.

That the impact of the army may be like that of a grindstone dashed against an egg is only a matter of dispersion and concentration.

Concentration and Economy of Force are two well known principles of war to us. One must never hope for miracles, and in war, when the strength of the enemy is not known, the best we can assume is to count our force as equal to that of the enemy. All plans will be formed on that basis. But how can we expect to beat the enemy when both sides are evenly matched? It seems absurd, but it is not.

Here is a story about the grandson of Master Sun, General Bin Sun. Before he became famous he was a guest at the household of Marshal Ji Tien, Commander-in-Chief of the Army of Chi, a feudal kingdom of that period. The Marshal often had games with the Princes on horseback hunting and archery, and Sun told his host that he had a plan by which the Marshal might win all the games. Thus he suggested, "Now, sir, match your worst horse against their best steeds, your best steed against their medium class horses, and your medium class horse against their worst." The result was two winnings for the Marshal against one loss, and so, of course, he won the day.

This is merely a simple illustration of the principles of Concentration and Economy of Force, or rather the relation of our concentration against the dispersion of the enemy, while not exposing our own dispersion that has to be made to get our concentration in the first place.

Generally in battles one makes contacts by frontal advances, and wins by surprises. So one who knows how to make surprises has no limit like the heaven and earth, and is inexhaustible like the rivers or the seas. . . . There are but five basic musical notes, yet the combinations of these five cannot be all heard; there are but five primary colors, yet the combination of these five cannot be all seen; there are but five major tastes, yet the combination of these five cannot be all tried. The blitz force of war is but a matter of surprises and frontal advances, yet the combination of these two cannot be exhausted. . . .

Here again we see Master Sun was all against the costly positional warfare of pitching materially force against force. For in a battle like this both sides will be defeated and broken. Only by surprises can we hope to win and to come out of it with little loss; without surprise we can not even bring our force to bear.

A seemingly surprise attack may actually be serving the purpose of a feint, while the obvious frontal attack, which seems to be a feint trying to hold immobile the enemy force, may turn out to be the real surprise. Especially when one holds a strong reserve,

*A translation from General Sun Tzu.

**All indented paragraphs are notes by the translator.

Chinese Cavalry on Mongolian front.

it is even possible and wise to change the plan of attack at the last moment, if there is such an opportunity, and to decide which way to let go the full blow of the real surprise, that is whether to strengthen the original surprise, whether to reverse the plan, or whether to smash a surprise blow at a new place.

The Master said, "What is war is only a study of deception."

That the rush of a torrent may even float rocks is because of its blitz force. That the swoop of an eagle may destroy its prey in a single blow is because of its judgment. Therefore a good fighter is overwhelming in his blitz force, and prompt in his judgment. The blitz force is comparable to the bending of a cross-bow; judgment to the releasing of the trigger.

In other words, having the force, we must know where and when to attack.

Amidst the turmoil and tumult of battle one may fight in great disorder, yet one cannot fall into real disorder; and amidst confusion and chaos one may be surrounded, yet one cannot be defeated. For disorder exists only in comparison with discipline; fear exists only in comparison with courage; and weakness exists only in comparison with strength. Discipline or disorder is a matter of organization; courage or fear is the influence of blitz force; and strength or weakness is a state of forms.

No state of affairs is definite: it is all relative. So long as we have the relatives superiority in discipline, courage, and strength, we will beat the enemy. This relative superiority can only be achieved by good training and preparation in peace, and clever manoeuvre in war.

So if one who knows how to keep the enemy on the move is making a disposition, the enemy will necessarily follow in preparation; if one leaves a bait, the enemy will certainly come for it. One would lure the enemy by false advantage, and lie in wait for him with the main body. Therefore a good fighter seeks the advantage of his own blitz force, and does not depend upon the enemy, so that he may choose from the enemy and let go his blitz force. . . . Thus the blitz force of a good fighter attacking his enemy is like rolling a piece of rock down a mountain of a thousand fathoms steep: such is the blitz force of war.

In conclusion to let go the blitz force with surprise and in concentration, we must seize the initiative from the enemy. And this can only be achieved by superiority in discipline, courage, and strength through good training and preparation in peace time.

Editorial Comment

Colonel Fenton S. Jacobs

Having received the editorial pencil of The CAVALRY JOURNAL from Colonel Fenton S. Jacobs, our initial effort is befittingly centered on him.

Colonel Jacobs assumed the editorship of The CAVALRY JOURNAL in July, 1940, soon after having completed the masterful and herculean task of compiling the narrative, preparing the discussions and drawing the maps and illustrations for *Cavalry Combat*. Under his able guidance The JOURNAL has grown and prospered. Its circulation has nearly doubled—this only by dint of hard work, wholehearted application, and many hours of persistent research in obtaining interesting and instructive material.

Colonel Jacobs has been relieved as Editor of The JOURNAL and ordered to duty with troops as Chief of Staff of a division.

The officers, Executive Council, and members of The United States Cavalry Association extend to you, Colonel Jacobs, our sincerest appreciation of your outstanding accomplishments and our heartiest good wishes for success in your new assignment!

The New Broom

It is an old custom in journalism for the new incumbent to announce a new editorial policy as soon as the editor's chair has been occupied long enough to put bags in the trouser knees.

We beg to announce, therefore, that The JOURNAL will continue under the same policy as heretofore. The editorial broom left by Colonel Jacobs is still strong and in excellent condition and if used with proper skill and ability should be able to keep the house of The CAVALRY JOURNAL in good order for sometime to come.

Under the pressure of censorship regulations, with which we are in hearty accord and complete coöperation, it will be necessary to curtail many articles of interest that possibly might be of aid and comfort to our enemies. We believe, however, that there is still a vast field of material from which to choose that will be both interesting and instructive. To this end attempts are being made (with some degree of success) to obtain authentic photographs and stories of the operations of cavalry and armored units on the Russian Front, as well as those in our sister republics to the south.

Inaugurated with this issue is a section devoted entirely to new ideas, with illustrations, that have been found successful in our own cavalry or armored force units. Individuals are invited to send in their ideas that have been used and would be of benefit to other units in the saving of man power, time, and the improvement in efficiency of our armed forces.

We shall also endeavor to obtain highlight news items from foreign battle fronts, whenever possible.

* * *

Modern Warfare?

One cannot pick up a current magazine or newspaper without reading some reference to "modern warfare." The expression is used indiscriminately by editors, news commentators, or anyone else who voices an opinion on the present world conflict.

War itself is of ancient vintage and dates back beyond the dark ages. War strategy, or the art of warfare is not new. Its fundamental principles have changed but slightly down through the ages. It is in certain details of the tactical employment of troops wherein there lies the modernization. New implements and new inventions that overcome distance on the ground or in the air, increased accuracy and distance in arms and munitions, and the addition of thousands of accessories of benefit to the war machine—all tend only to alter the *details* of tactical employment. The basic principles of strategy, upon which the tactical foundation is built, remain but slightly changed.

To be sure, modern improvements have been added to the implements of war, but these remain only *vital accessories to the fact*. It still has been proven in this present war (and what is a better criterion?) that some of the "antiquated" methods of warfare are now being employed overseas and are contributing factors to the successes that have been accomplished.

Our own strategists should not totally disregard the experiences of the Russian High Command in their successful employment of mounted troops. A recent statement by Major General Obeckoff (See Page 7 of this issue) that the 1942 Cossack operations were modeled after the work of our own cavalry in the *American Civil War* should be given prompt recognition in the expansion plans of our war machine.

* * *

L'Envoi

This modern war is one of speed.
Of tanks and planes, there's crying need,
But let us ponder and beware
"The little horse that wasn't there!"

* * *

Addresses and A.P.O's

One-third of the subscribers to The Cavalry Journal are on the move—station to station; station to foreign service; merely routine changes.

Some wives have written in to say that their husbands have gone on "active duty—please discontinue The Cavalry Journal"; and others, "My husband has been assigned to foreign service. Please cancel." If The Cavalry Journal was ever of pleasure or profit during peace times, it will be an even greater pleasure and profit when it reaches you on foreign soil. Send us your A.P.O., c/o Postmaster, (.....), and wherever the U. S. mail is carried, your Cavalry Journal will be mailed to you!

Don't wait until the "last minute." If everyone waited, we could not possibly make the changes in time to catch the next issue. Send your new address at the time that you move. The Journal will take care of the rest!

* * *

Back Issues of The Cavalry Journal

Innumerable requests are received for back issues of The Cavalry Journal that *we cannot supply*. These issues contain reference material, technical data, photographs that today cannot be duplicated or published. So—if you are on the move or cleaning house—don't give your back issues to the junkman for scrap! Send them by C.O.D. express to our editorial offices:

The Cavalry Journal
1719 K Street, N.W.
Washington, D. C.

Don't Drop That, Sam!

We need them! The following specific issues, now extinct, are particularly desired:

March-April, 1942

July-August, March-April, and January-February, 1941.

November-December, July-August, 1940.

September-October, July-August, 1939.

July, 1923.

If you have these particular issues and have no further use for them, send them in. They will help a research laboratory, a library, or the Headquarters of some military organization.

Will you please make a reconnaissance, then carry out the mission? It will be appreciated we assure you.

* * *

The Locators

Under the auspices of the Women's Activities Group, at Fort Leavenworth, Kansas, a file to compile and furnish information about the addresses of Army officers' wives has been established.

The service is without charge, but anyone requesting information about any officers' wife should use a self-addressed penny postal and place on the reverse side the name of the person, whose whereabouts is sought, together with her first name, husband's name and rank.

Coöperation of officers' wives is sought, so that the files may be kept up-to-the-minute. Please send your name and address, as you wish it to appear in the rec-

ords, and also the rank and name of your husband, as given in the Army Directory.

Watch this publication, too, because it is giving us space that is valuable. Start right away, and see if you know where any of the following are:

Mrs. Sadie Pratt, wife of Major General J. Conger Pratt, recently stationed in the Philippines; Mrs. Clifford Bluemel, wife of Brigadier General Clifford Bluemel; Mrs. Avis McBride, wife of Brigadier General Allen C. McBride; Mrs. Helen Carroll, wife of Colonel Percy J. Carroll (Med); Mrs. Ann Bediger, wife of Colonel Sam Bediger, F.A.; Mrs. Gladys Collins, wife of Brigadier General J. Lawton Collins, Inf.; Mrs. Mary Belle Martin, wife of Colonel Robert N. Martin; Mrs. Rilla Horton, wife of Major Thomas Horton, QMC (mother lives near Lexington, Ky.); Mrs. Janer DeWitt Slauson, wife of Lieutenant Colonel Kingsley W. Slauson, late of Hikham Field; Mrs. Harry S. Tubbs, wife of Captain Tubbs, CAC; Mrs. Jack M. Schwartz, wife of Lieutenant Colonel Jack M. Schwartz; Mrs. Howard Smalley, wife of Captain Howard N. Smalley, of Fort Custer; Mrs. Eugene Ridings, wife of Colonel Ridings; Mrs. W. K. Stennis, wife of Major Stennis, CAC; Mrs. Joseph P. Kohn, wife of Colonel Kohn, CAC; Mrs. Paul C. Davis, wife of Captain Davis, CAC; Mrs. J. Scott Kurtz, wife of Captain Kurtz, Inf.; Mrs. Kathleen Hoffman, wife of Colonel Robert Hoffman, Inf.; Mrs. Olive Reinhardt, wife of Colonel George C. Reinhardt, CE; Mrs. George K. Withers, wife of Colonel Withers, CE; Mrs. Joseph W. Cox, Jr., wife of Colonel Cox, CE; and Mrs. Vivian Bonning, wife of Major Edward A. Bonning, FA.

Addresses are furnished upon individual request only, and no lists are available for solicitation.

The Locators' address is P.O. Box 537, Fort Leavenworth, Kansas.

Seventh Annual 100-Mile Trail Ride of the Green Mountain Horse Association—September 3-5, 1942

AT the spring meeting of the Green Mountain Horse Association, which was held in Rutland, Vermont, on Memorial Day, it was decided that the 100-Mile Trail Ride should be continued.

The 100-Mile Ride is considerably different from an ordinary horse show as two of its chief objectives are to stimulate interest in breeding and to determine the type and breed best suited for saddle purposes.

In connection with the 100-Mile Trail Ride, a school of instruction for civilian mounted defense groups will also be carried on. A ride similar to our 50-Mile Pleasure Ride of former years will be on the program but will be in the nature of a schooling period for mounted patrols. It is hoped that a large group will ship or ride in their horses to participate in this school. Cross-country rides will take place in the morning and the afternoons will be devoted to classes. These classes will include instruction in transportation of injured persons by means of horses, fire control, pack tripping, map reading, orientation, and much other useful information, and we feel it will be very interesting to all participants.

The course will be over some of Vermont's most beautiful riding trails, with the finest footing to be found anywhere. There is a great variety of going, from long level stretches where brisk trotting can be indulged in to stiff climbs where the condition of the horse will be tested.

The ride is not planned as a horse-killing event. We do not want it so tough that only professional riders and horses with months of conditioning can enter. Our purpose in laying out the course and conducting the ride is to have it severe enough to test the soundness and fitness of an ordinary good saddle horse that has been intelligently conditioned and ridden. We feel that any good riders who will spend a month or six weeks in conditioning his horse and who has a sound horse to begin with, can enter this ride and give a good account of himself. Do not attempt the ride, however, if you are not able to get your horse and self into proper condition. It would be an unpleasant experience for you and might do your horse a great deal of harm.

Army Emergency Relief

Army Emergency Relief has been organized to give speedy financial help and other assistance to all soldiers and their dependents who *deserve* it—whenever and wherever such help is *needed*.

In proper cases, money will be advanced. In other cases, medical care, food, fuel and clothing will be furnished.

Soldiers and their dependents may ask for help at any Army post, camp or air field—or at any Red Cross Chapter, where full information will be available.

Dependents applying for assistance must give name, grade, serial number, organization, station or last mailing address of the soldier under whose name they are applying for aid.

The Russians Had a Word For It—Cossacks!

To the Graduating Class, U.S.M.A., 1942

Your utmost endeavor, backed by high and unselfish purpose, will be required to bring this struggle to a triumphant conclusion. No compromise is possible, and the victory of the democracies can only be complete with the utter defeat of the war machines of Germany and Japan.

—*Extract from address by General George C. Marshall*

General Hawkins' Notes

A FEW years ago the pseudo military experts were vociferous in their controversy of the doctrine of Marshal Foch who insisted on attack as the solution of almost all tactical problems. The Marshal was scored for the great losses which some of his ineffectual attacks brought about. Now the same kind of writers are yelling *for* the attack—the offensive, as the only means by which battles and wars can be won. The truth is that the art of warfare consists in the *proper combination of attack and defense*. The attack is the ultimate objective, but a strong defense in one locality is the firm base upon which is built the possibility of attack in another locality.

It is a principle which must apply to all strategy as well as tactics. It is perfectly true that we must eventually take the offensive before we can hope to win a war, but in the very act of seizing the initiative and taking the offensive we must also take defensive measures to hold certain localities as bases from which we may launch our attacks. Of course, from a purely tactical standpoint, there are some exceptions to this rule, as when a comparatively small force makes an all-out attack without holding out a base of supporting fire or even a reserve. Such action applies principally to small isolated forces which for the time being are not tactically dependent upon any other force. It would apply to desperate situations in which a force attacks in order to escape encirclement.

Almost always, however, a part of any force acting offensively must hold while other parts advance to attack. This holding may be done by actually advancing the holding force to attack and thus hold the enemy in position while the main attacking forces envelope the enemy or attack elsewhere. Frequently, in a war of movement, and when the enemy launches an attack upon us, we hold off that attack by defensive measures in that locality while we move other forces to the counterattack.

This principle is applicable, also, to the discussions that we hear about the organization and equipment of our antitank units.

If the enemy attacks with armored forces, we attempt to hold him off with antitank guns and artillery; and we counterattack on his flank with our own armored forces supported often by large masses of our infantry for which free lanes or avenues are thus opened up for advance against the enemy main forces. We must know, therefore, not only how to attack and how to defend, but also how to employ the proper combination of both.

All large units of infantry or cavalry must have, as a component part of such units, an adequate number of antitank battalions or squadrons. Those must be numerous enough to protect the troops against attacks by hostile armored forces without having to call upon our own armored forces to repel such attacks. Our own armored forces are thus released for offensive attack missions sufficiently separated from, but in coöperation with, our infantry and cavalry forces.

In battle, our reserves must be composed of all arms, including armored forces and antitank forces.

When our armies are on the defensive the tactical disposition of our armored forces is in reserve, at least temporarily. If the enemy armored forces are much larger than our own, we must rely on antitank units to break up the attack of hostile armored units and then counterattack with our own armored units. To hurl our own armored units originally against the enemy armored force in attack is a mistake. Not until our antitank guns have been fully used to cripple the enemy tanks should our own tanks go in to meet them. It is the same principle that we use in a cavalry attack when, first of all, we use our artillery and machine guns against the enemy and then attack him by movement of maneuvering forces to a more vulnerable spot. In a battle in which armored forces are opposed to each other the loss in tanks is very great. They are not easily replaced on the immediate battlefield, even if there should be plenty of them in the factories and depots at home. We should endeavor to use our tanks where they can do the most good with the least loss to ourselves. Infantry continues to be the main battle force of all armies. Until our enemy infantry has been equipped to make a sure and certain defense against tanks, it is this infantry against which our armored force attack should be directed.

In offensive operations our armored forces will be useful in making wide turning movements with the pincer-like maneuvers that have been effective in the German army. This use of our armored forces will not be possible if they have to remain back in position to guard our infantry from hostile tank attack. In the early part of this war the Germans were not bothered by such considerations because their enemies had very few armored troops and the infantry of their enemies had no effective antitank forces to protect them.

Antitank units must be very mobile so as to place themselves quickly in position to oppose hostile tank attacks, but the main use of antitank guns is defensive in nature although their fire is used to support an attack against armored forces.

We must produce enough powerful and effective antitank guns organized into a sufficient number of antitank units to get the jump on our enemies. Then our armored forces will be able to carry out their most useful missions. Of course, if our enemies do the same

thing, it will be a question of who has the most of everything needed by an army, and of the skill, courage and fighting spirit with which these things are handled.

It is not intended to contend that antitank units will be a perfect defense against an armored force. If they were, there would be no use for an armored force. In open warfare of movement, there is no perfect defense against any kind of troops. There are too many intangible factors to consider. Infantry and cavalry divisions, however, properly supported by antitank units, have reasonable chances, and at least would prevent the enemy armored forces from running wild as the Germans did in France in the year 1940.

Infantry remains the main fighting force of every army, as has been demonstrated in every campaign to date. As long as there is infantry there is need for cavalry. This has also been demonstrated in every campaign. There have been campaigns without cavalry, but the need for it was present although it was not available.

There is more and more news coming in of important exploits of the Russian cavalry. Unhampered by any motor vehicles, it moves across country with its accompanying weapons and does not hesitate to engage any type of German troops including armored forces. In fact, regiment for regiment it claims to be able to handle armored forces, and has frequently done so with success. Undoubtedly this success is due to the skilful use of terrain and the proper handling of its antitank units. Its antitank guns are drawn by horses and so are its artillery guns. The Russian cavalry does not believe in having any motor vehicles whatever in its organized equipment except supply trains which may be drawn from a pool in the army or army corps to which it may be assigned or attached. This accounts for its great mobility across any kind of country.

The Germans, according to recent reports from the Russian Front, are now using cavalry in formations as large as a brigade or division, to counter against the continued attacks of the Cossacks.*

*Editor's Note: See news item, page 21.

The Air-Rifle Mount

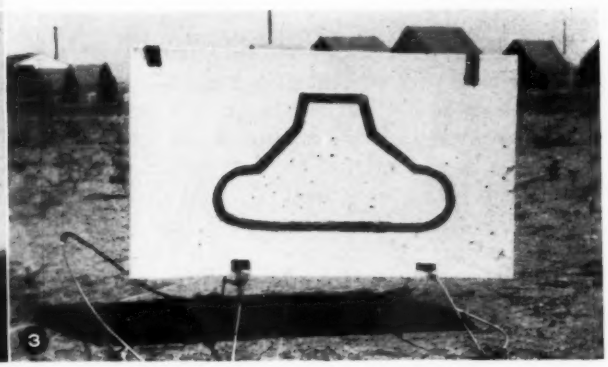
By Lieutenant Paul G. Skowronek, 113th Cavalry

THE air-rifle tracking-training mount here described is best employed as a step preliminary to sub-caliber ball ammunition firing. It can be used in troop training areas, requires little supervision by commissioned officers, and makes the initial aiming, traversing and elevating practice much more interesting than the usual "dry run." The benefits derived from training with this device more than warrant the small expenditure for equipment.

The rifle is of standard design with a forced feed—necessary because of the fixed, inverted position. The clamp is of wood shaped to fasten the barrel of the air-rifle parallel to that of the 37mm gun. A taut wire is stretched from the trigger lever of the anti-tank gun to the trigger of the rifle.

The target, pulled by a cord, is a paste-board box mounted on a wire, sled-like runner.

The course of the target, by pulley arrangement, may be made to be of more than one direction, but should not have too much depth in range because the sight and rifle barrel focus sharply only at mid range. A course beginning at seventy-five and ending at fifty feet was found satisfactory.



1—On 37mm gun. 2—Method of clamping on 37mm gun barrel. 3—The target.

Argentine Cavalry*

IF one views as a whole the picture presented by the topography of Argentina—the great extent of her territory, her vast plains and prairies, her temperate climate, her great wealth in livestock—and thinks also of the natural bent of her people toward the simplicity of country life, it is not surprising that in this land, the fame of whose "men on horseback" is well known, cavalry has played an inestimable rôle in the struggles for the liberty of Argentina and that of her sister American lands.

It may be said that authentic Argentine cavalry was born in 1812 with the creation of the Regiment of Mounted Grenadiers by Lieutenant Colonel D. José de San Martin, later Liberator of Chili and Peru. This unit, a model of discipline and organization, covered themselves with glory in the numerous combats and battles in which it was their fortune to participate. It is the only unit in the Argentine army that even today preserves the traditional colorful uniform designed by the organizer of the unit.

*Compiled by the General Staff, Army of the Republic of Argentina.

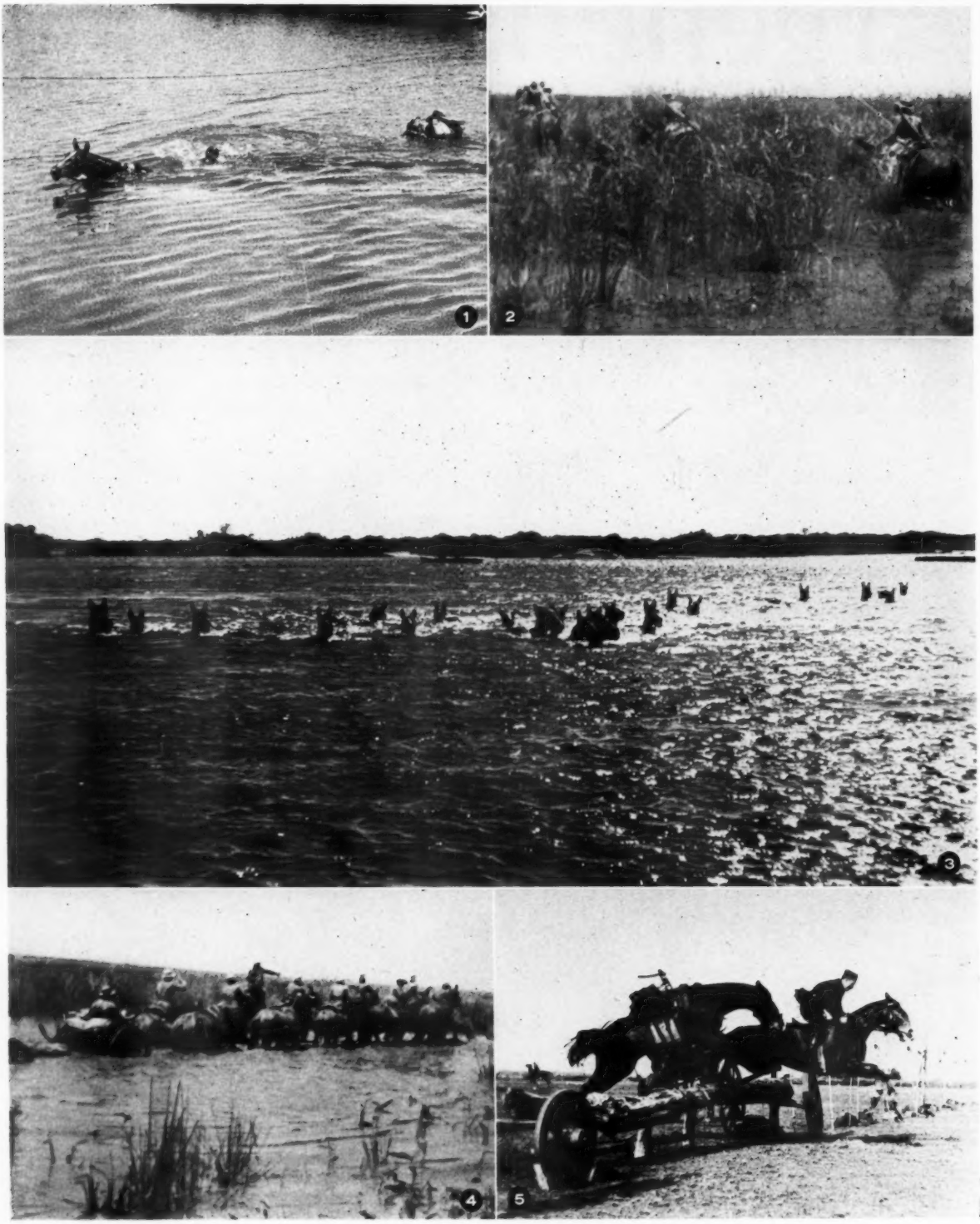
Later the Argentine cavalry participated in the extensive internal struggles that ended in national unity, and in the campaigns against the Indians, carrying their arms from the spreading *pampas* to the first spurs of the great range of the Andes, establishing the sites of communities and bringing vast regions of the country under civilizing influences.

Everywhere in Argentina one sees in the squares equestrian statues of heroes. It might be said that the Argentine state was built from horseback by those warrior *gauchos,* who have appeared since the beginning of her history, reining their pawing chargers in the dust of the limitless plains, filled with liberty and glory.

And so the modern Argentine cavalry lacks neither a glorious tradition nor personnel of a high order, since as we have seen, this country has an inexhaustible source of born horsemen, who love danger for its own sake and are inured to hardships of life in the field, with its adventures, its vigils, and its triumphs.

And neither do modern commanders lack examples of born cavalry leaders: San Martín, Lavalle, Necochea,

Top: Moving up to position. *Bottom:* Dismounted action.



1—Crossing a stream; individual pack being towed. 2—Patrolling across swampy terrain. 3—Swimming across a river. 4—Moving across swampy terrain. 5—Pack horse and trooper taking an obstacle.

Stream crossing.

Lamadrid, Paz, Güemez with his famous *gauchos,* etc., all of them possessed of personal courage verging on rashness, bold and fearless in the irrestible force they knew how to impart to their furious charges that have become legends in the country.

Today, other than the traditional *élan* of that arm, there is little that the modern Argentine cavalry preserves of those former units armed almost exclusively with sabre and lance for combat at close quarters. Without losing its characteristic mobility, it possesses at the present time great fire power and shock force that enables it to take a successful part in the actions of modern war.

There is in Argentina a Chief of Cavalry of the Army who represents higher authority within the branch and is the sole advisor in all matters connected with the organization, instruction, and war preparations of the troops and services of the cavalry.

Under his control are the three divisions of cavalry which exist at the present time and also a regiment of School Cavalry, in which are conducted tests and experimental training of a special nature, in order to try out and approve matters of organization and instruction.

In time of peace each division contains brigades of several regiments each, artillery, signal troops, engineers, and the necessary services, in the form of cadres of cavalry units later to be organized.

There are in all fifteen regiments of cavalry distributed in separate garrisons throughout the country; in addition to the regiments, each division of the army has under its orders its own detachment of mounted scouts, especially organized for the mission they have to accomplish.

To facilitate instruction, the increments of conscripts for the cavalry are drawn from the numerous horsemen of military age, who serve for one year. The year is divided into four periods: individual training, training by troop, training by regiment, and concluding exercises or maneuvers. The concluding exercises are held each year in the neighborhood of the garrisons; on certain occasions combined maneuvers are held, in which there is intensive practice of the functions pertaining to the arm.

Particular attention is paid to the preparation of the groups of officers and non-commissioned officers in order to qualify them for the discharge of their respective duties. The officers are enrolled in special courses whose purpose is to prepare them for the command of larger or smaller units according to their rank. The units follow also a plan of instruction of officers for gradual physical development; they participate in exercises for conditioning and developing agility, such as equitation, hunting, polo, swimming, fencing, driving motor vehicles, etc.

The annual contests of "Officers' Mount" classes, miscellaneous jumps, high jumps, and polo. bring together in the city of Buenos Aires teams and individual riders

from the divisional meetings, and exhibitions of very high quality are likely to take place in these gatherings. For example, in the contests of 1941 there were jumps of almost seven feet, and polo teams were formed of handicap of more than twenty goals.

Separate from these contests, the Argentine military riders won in 1940 over their Chilean comrades, and there is now being formed in Argentina a team representing the army which will participate in the international horsemanship contests which will be held shortly.

In the matter of mounts furnished officers and troops, it is enough to say that there are eight million horses in Argentina, commonly of excellent selective breeding, to understand that in this country the problem of obtaining proper mounts does not exist. Each unit receives the type of horses that it needs: saddle, light or heavy draft, pack.

Everything concerned with the improvement of strains and the breeding of horses in the country, and also matters connected with encouraging equestrian activities, is centered in the Remount Headquarters of the army, at the head of which is a cavalry general. This headquarters publishes two periodicals to guide horsemen and breeders of the entire country.

The Spanish Language*

THE beginner in Spanish is often confused by would-be helpful friends who assure him, quite mistakenly, "there's no use in learning Castilian, it isn't spoken in South America, and even in Spain there are different dialects among the Provinces." It is only necessary to reflect that all European languages possess regional variations, but that each has a master tongue, as it were, understood throughout the nation. The dialect of the Yorkshire peasant may be almost unintelligible to the visitor from the United States, and differs greatly from the vocabulary and pronunciation of the Highland Scot, yet Scot, Yorkshireman and New Yorker read the same version and comprehend Oxonian speech. German and French have similar variations. Ancient Greece spoke various dialects, all of which were Greek, but through force of circumstances Athenian triumphed over Doric, Eolic and Jonic and became the official and literary vehicle of Greek thought. Similarly, all of the languages spoken in Spain are Spanish, and apart from the Basque tongue, there are only minor and local differences between the colloquial tongues of Galicia, Asturias, Leon, Castilla, Murcia, Valencia, etc. In Cataluña and the Balaearic Islands, a bilingualism prevails, but Catalan and *Mallorquin* exist beside Castilian, and do not replace it. These tongues possess many Spanish words and their origin is common. The methods of speech in all parts of Spain, for the Basques are also Spanish-speaking, had a common basis in Celtiberian, and have been exposed to Semitic (Phoenician, Carthaginian, Arabic), Greek, Latin and German influence, by invasion, in greater or less degree. Latterly there has been an infusion of French and English words and roots, though these often duplicate existing Spanish forms. The more *gauche* of these alienisms are currently the subject of a campaign of eradication, as is to be expected during epochs of nationalistic exaltation. In any case, the regional differences, which needlessly worry the beginner in Spanish, are slight and consist only in phonetic modifications, reduction of dipthongs, the termination of derivatives and forms of the definite article. The Spanish language, classified in idiom, dialects and subdialects, reflects three major epochs of evolution. The first embraces the dawn of history and ends with the close of the Second Punic War (206 B. C.) when the Carthaginians withdrew from the Peninsula. The second period includes the coming of the Romans in the same year and extends to the fall of the Visigothic Kingdoms in 711 A.D. The third epoch, opening with the Moslem invasion, comprises medieval and modern Spain. Through political evolution, Castilian became the official language of Spain and thus of Spanish America. The scholar may delight in the regional variations, the student can confide in his knowledge of Castilian to carry him safely through all commercial and social contacts.

The Roman authors Strabo, Julius Caesar, Pliny, Pomponius Mela and Ptolemy have left extensive records of the language of aboriginal Spain, Celtic, which all Roman authors agree was spoken throughout the Peninsula, Strabo commenting that the frequent emigration of the Celtic tribes from point to point in Spain made for a unified language. Long before, in 1600 B.C. the Phoenicians had established the first of their "factories" in the Balearic Islands and near Cadiz; the Greeks had settled by 900 B.C. on the Mediterranean litoral and in the northwestern portion of the Peninsula, embellishing the native tongue with their linguistic introductions, which may yet be traced in the living language. The Romans found the Celtiberians possessing a grammar, dating back half a millennium, evidence of a high mentality and long settlement. The Romans enforced the use of Latin for all official intercourse, but

*Courtesy, *Spain* magazine.

their tongue possessed two distinct forms, literary and official, and the popular. The latter was very similar to Iberian, and to further contacts a "Romanic" vocabulary came into being, composed of both languages, which may be considered the source of the new Spanish language. The Visigoths, who were a conquering stratum of warriors, but not great masses of settlers evicting the first comers, were absorbed linguistically by the Romanic language, the less difficult since they already possessed many words of Celtic origin. St. Isidro of Sevilla wrote in his *Etimologias* (early seventh century) that the language of Spain was modified Latin, with Greek as a second language along the Mediterranean coast, and the Roman-Gothic dialects in the remainder of the Peninsula. The Arabs brought a strong cultural influence as their contribution to the formation of modern Spanish, with their translation of Greek philosophy and grammatical studies. The eighth century, which showed notable transition in the popular tongue in the southwest of Spain, also witnessed the rise of Catalan-Provencal in the coastal areas of northeastern Spain and southern France which had been subject to Greek culture.

The ascendancy of the idiom of Castilla over its fellows in the other regions of the Peninsula dates from 1230, when by orders of King Fernando III the judicial code *Fuero Juzgo* was rendered into Castilian. Thereafter the tongue of Castilla became the official language and enjoyed the benefits of development in statecraft, literature and science largely denied the others. The first literary monument of Castilian is the *Cantar del mio Cid,* one of the great epic poems of all time (1140 A.D.). The Catalan language developed literature of its own, but the dialects of Spanish remained largely oral. Both Basque and Catalan as languages of the peasants of their regions have retreated before the educational inroads of Spanish, and official decrees require the use of Spanish in all official and religious ceremonies. The dates of appearance of Catalan and Portuguese can be relatively closely fixed, Basque on the contrary is one of the oldest of living languages, and there are authorities who trace a similarity to Etruscan, certain tongues in the Caucasus and even Japanese. Both Basque and Catalan were the objects of exploitation by separatist politicians during and shortly before the existence of the Marxist Republic (1931-36), attempting to make these ancient tongues the vehicles of their ambitions. Their attempts were rejected by the masses of the Basque and Catalan people and their disingenuousness may be gauged by the fact that leaders of the separatists who proclaimed a "Republic of Euzkadi" at Soviet bidding, were unable to speak Basque.

In the already celebrated year 1492 appeared the first "Grammar of the Castilian Language." In 1536 the Emperor Charles V of the Holy Roman Empire solemnly adopted Spanish as the language of imperial policy and diplomacy, in the presence of the Pope Paul III. In this period appeared Cervantes, whose only rival in the formation of a national tongue may be Shakespeare. In the sixteenth and seventeenth centuries Spanish exercised in Europe the literary hegemony surrendered by Italian.

When Columbus sighted the Indies, Castilian was already the official language of Spain but the dialects of the Provinces were still offering lusty colloquial competition. This produced an interesting result in the Americas. The greater part of the *Conquistadores* and their contingents were from southwestern Spain, Andalucians and Extremadurans, far outnumbering the Castilians in the first stages of the conquest and colonization. Call the roll of the Great Captains, perhaps unmatched in history. *Andaluces:* the three brothers Pinzon, Alvaro Nuñez, Juan Dias de Solis, Gonzalo Jimenez de Quesada, Pedro de Mendoza; *Extremeños:* perhaps the most illustrious of all, Hernan Cortés, Hernando de Soto, Francisco de Orellana, Vasco Nuñez de Balboa, the Pizarros, Pedro de Valdivia, Pedro de Alvarado. By the end of the sixteenth century Extremadura was almost depopulated, whole towns had emigrated to America. They brought with them their phrases and usages. There are eddies in languages no less than in rivers. In the mountains of western North Carolina and eastern Kentucky today one may encounter the tongue of Shakespeare a living entity; here and there in Spanish America, often in official phrasing and titles, occur reminders of the sixteenth century, though they have disappeared long since from the hills of Extremadura and the smiling *llanos* of Andalucia. There are slight differences in colloquial speech between Mexico, Cuba, Colombia and Argentina, as there are differences between the common usages of Maine and South Carolina. But throughout Spanish America, the written word is Castilian. Spanish America, indeed, has given the language its best practical grammar, that of Andres Bello, annotated by a fellow countryman, Rufino José Cuervo.

Spanish is one of the world's great languages, in every sense of the word. For music and sonorousness it has no rival, of the languages deriving from Latin, Spanish has achieved the widest digusion. After English, it is probably the idiom of greatest propagation. With its sister, Portuguese, Spanish dominates one continent and large portions of two others. Over one hundred million persons speak Spanish as their principal or only language, millions of others enjoy it as a cultural advantage or commercial necessity. From Lima to Madrid, Rio de Oro to the Levant and the Philippines, literally the sun never sets on the speech of Cervantes.

Why Not the Camera for Reconnaissance?

*By Captain Prentice G. Morgan, Cavalry**

EVERYONE is aware of the value of the aerial camera and the extensive use to which it has been put by all modern armies, but how much thought has been given to the possible value of cameras rightly placed and used in tactical elements of the ground forces?

If the Tables of Basic Allowances are any criteria there has been little if any thought of using the camera as a tactical instrument. In the TBA for an armored division, for example, one camera is allocated to the Engineer Battalion. It is an excellent instrument for press work, but too cumbersome and bulky to be considered for efficient use in the field.

The ideal camera for use in the field is the 35mm or minature camera. The lack of interest in this instrument, however, is shown by the fact that no miniature cameras are listed in the Signal Corps catalog. Other than the Speed Graphic, the only instruments listed there are copying and identification photo cameras.

Miniature cameras in the hands of reconnaissance and engineer units, be they horse, foot or mechanized, would seem to have an easily demonstratable value.

Let us briefly examine the capabilities of the equipment available today on the commercial market. In a compact package weighing little more than a pound and not more than eight inches in its greatest dimension, we have a precision instrument capable of recording an almost endless series of pictorial records of anything which a man can approach in daylight. Details of terrain, of bridges, roads, fords and any other military features are open to its instantaneous sight and permanent memory. Equipped with a telephoto lens it is capable of peering into enemy territory with a sight many times more powerful than the standard EE field glass or of exploring a feature of terrain too far off the route of reconnaissance to justify the sending of a patrol. And all this may be done in a fraction of the time necessary for a reconnaissance agent to get out his sketching materials.

With modern developing methods a series of pictures can be taken and be ready for use within an hour, the entire developing process being done in daylight and, if necessary, in a moving scout car or peep.

The necessary equipment for taking the pictures, developing the film and making the negative ready for viewing could be assembled in a case not much bigger than that in which a portable typewriter is carried.

Training personnel in the use of the camera need not be a difficult process if it is remembered that what is desired is not camera artists but merely soldiers capable of producing clear record shots. With intensive and thorough training almost any American soldier could be trained to use the camera and its accessories in from two weeks to a month, presupposing, of course, a well organized plan of instruction.

The circumstances under which the camera might be of value are numerous. Here are some of them:

1. Bridge and road reconnaissance.
2. Substitution for field sketches.
3. Use by scouts behind the enemy lines in studying the composition and strength of columns and identification of units and equipment.
4. Engineer reconnaissance for stream crossing operations, bridge buildings, entrenching and field fortification operations, including antitank installations.
5. Mine field reconnaissance.
6. Advanced aircraft landing field reconnaissance.
7. Recording of intelligence information through photographs of wrecked or captured enemy vehicles, weapons or dead.

Many other uses will readily suggest themselves and as a matter of fact any patrol or reconnaissance mission will be enhanced in value if pictures are used to illustrate the reports.

In numerous cases photographs will provide the commander of a large unit with his best substitute for personal reconnaissance.

What are some of the circumstances under which the camera might be of value? Here is an illustration of the use of the camera by a patrol: A patrol from the reconnaissance battalion of an armored division is given the mission of making a route reconnaissance in anticipation of a possible advance of the division. Specific information as to bridges, fords, roads and identification of the route is desired at division headquarters. Engineer personnel is engaged elsewhere and is not available for inclusion in the patrol.

The patrol, mounted in two, or three quarter ton trucks, and equipped with a miniature camera and accessories, starts on its mission before dawn. By daylight it is well on its way, and in country where enemy patrol

*Armored Force.

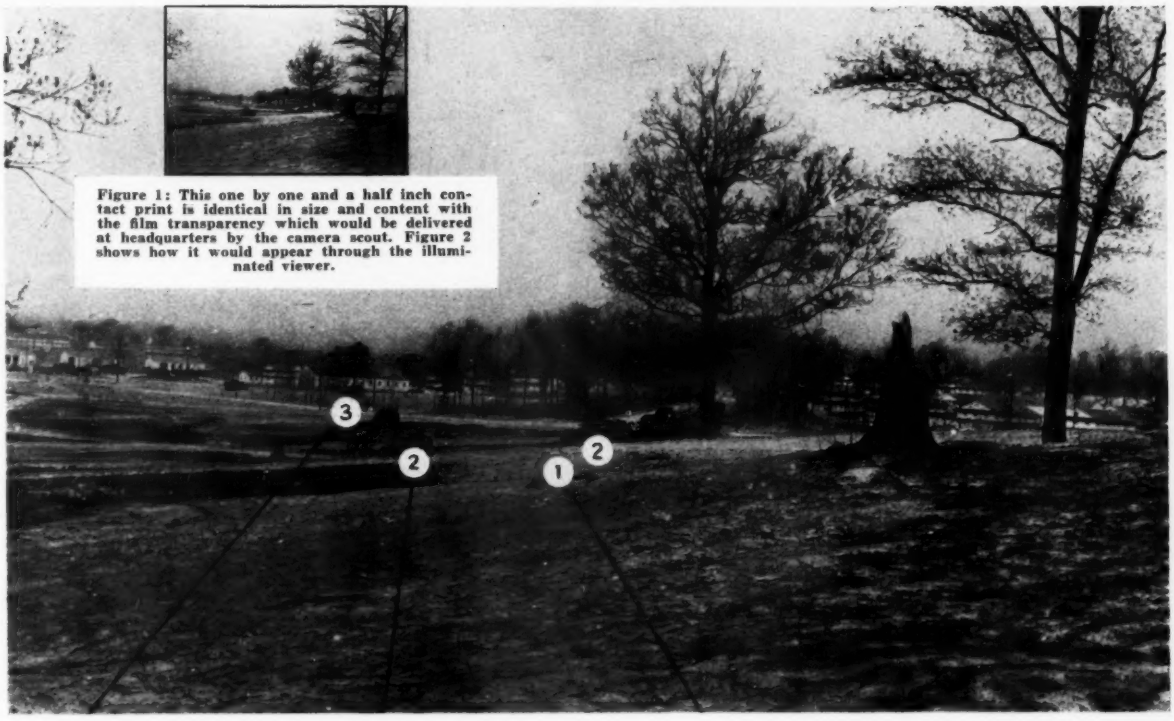


Figure 1: This one by one and a half inch contact print is identical in size and content with the film transparency which would be delivered at headquarters by the camera scout. Figure 2 shows how it would appear through the illuminated viewer.

INTERSECTION — 1,000 YARDS FROM CAMERA ③

TANKS—150 YARDS FROM CAMERA ②

50 YARDS FROM CAMERA ①

Figure 2, position 1: Picture taken with ordinary lens (50 mm). The ridge line behind the stump is 50 yards from camera. The tanks are 150 yards away. The road intersection is 1,000 yards from camera. This represents what would be seen when the miniature film transparency is placed in the magnifying viewer.

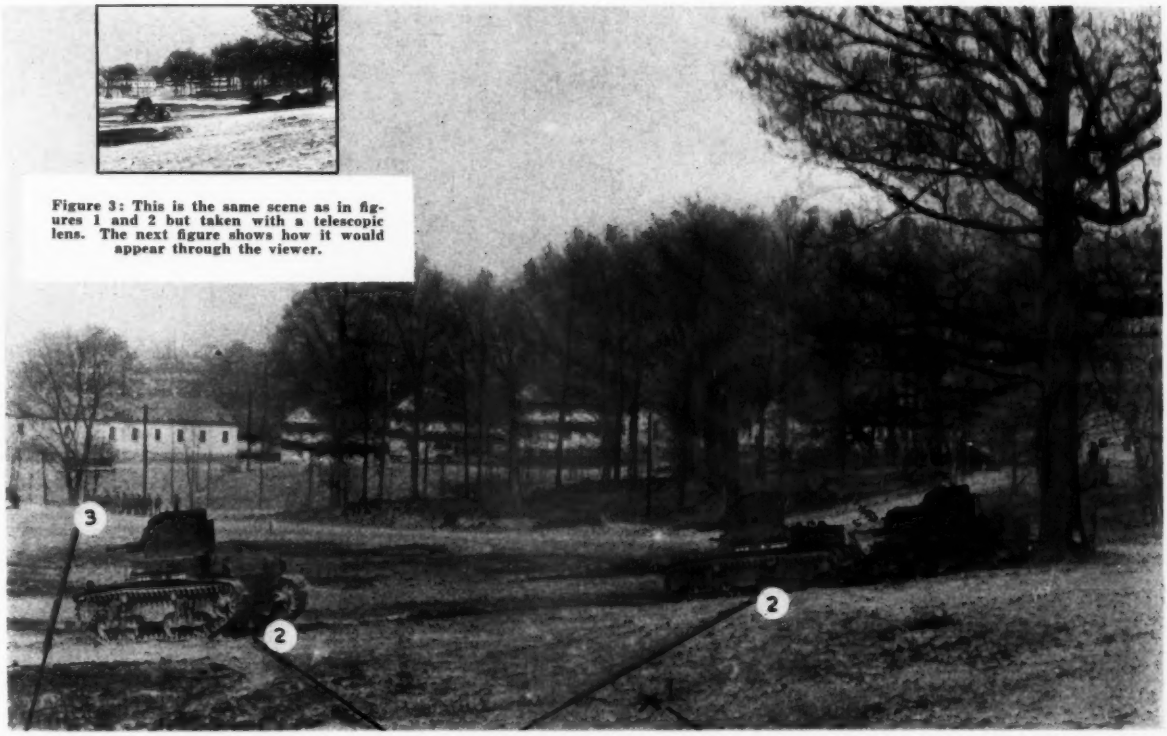


Figure 3: This is the same scene as in figures 1 and 2 but taken with a telescopic lens. The next figure shows how it would appear through the viewer.

1,000 YARDS FROM CAMERA ③

150–175 YARDS FROM CAMERA ②

50 YARDS FROM CAMERA ①

Figure 4, position 1: Picture taken from same position as figure 1 but with telephoto lens with a focal length of 135 millimeters. Lenses up to 400 millimeters are available.

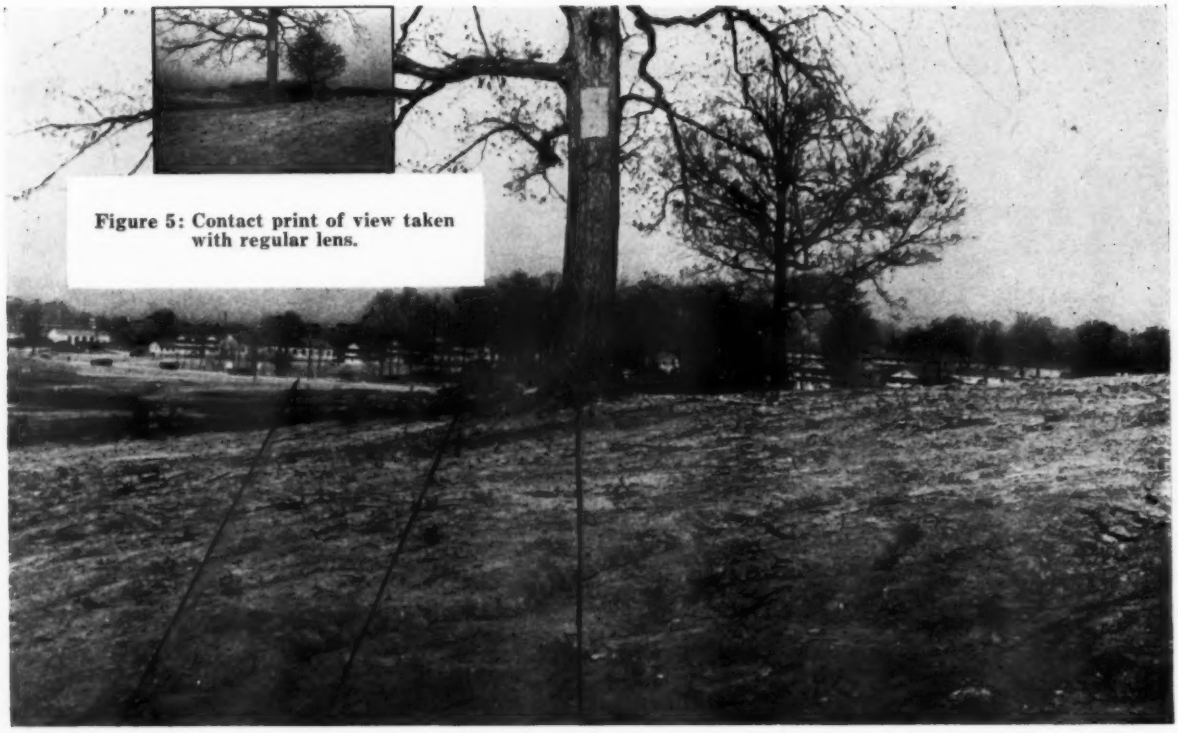


Figure 5: Contact print of view taken with regular lens.

INTERSECTION— 1,000 YARDS FROM CAMERA ③

TANKS— 150 YARDS FROM CAMERA ②

TREE— 30 YARDS FROM CAMERA ①

Figure 6, position 2: Picture taken with ordinary lens. The tree is 30 yards, the tanks 150 yards from camera. This is how the one by one and a half inch film transparency appears through the magnifying viewer.

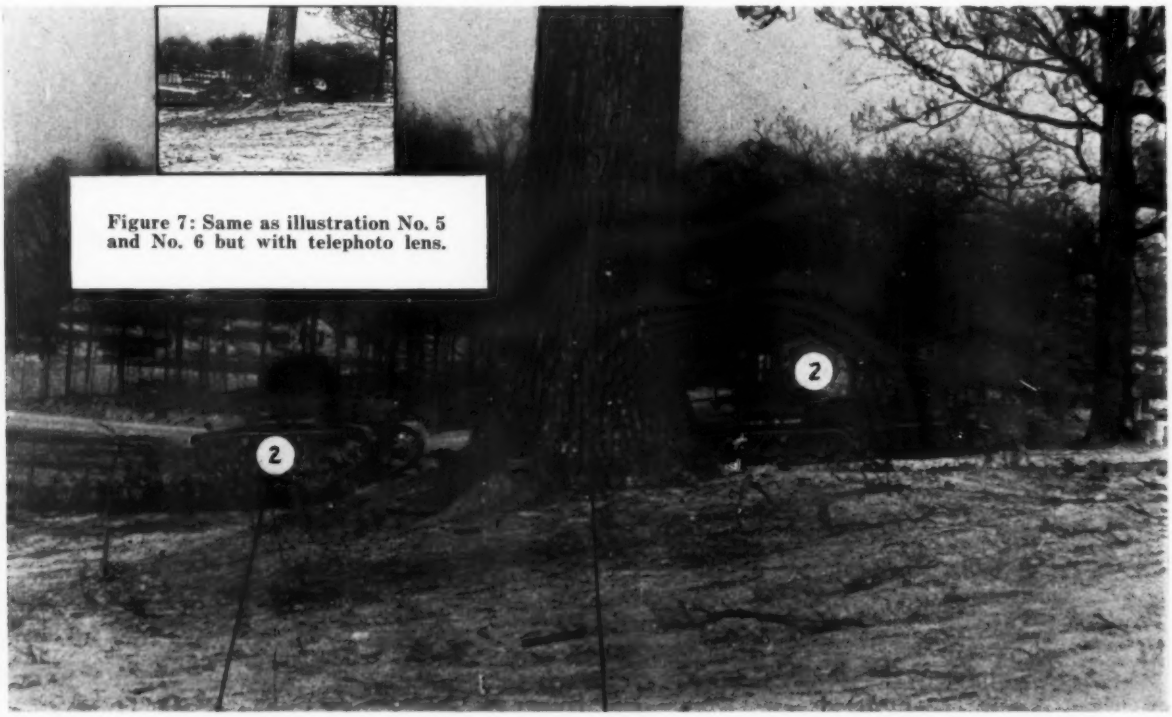


Figure 7: Same as illustration No. 5 and No. 6 but with telephoto lens.

TANKS— 150 YARDS FROM CAMERA ②

TREE— 30 YARDS FROM CAMERA ①

Figure 8, position 2: Taken with telephoto lens from same position as figure 3 but with 135 mm. telephoto lens. Note the detail visible in tanks. With the 400 mm. lens magnification would be much greater.

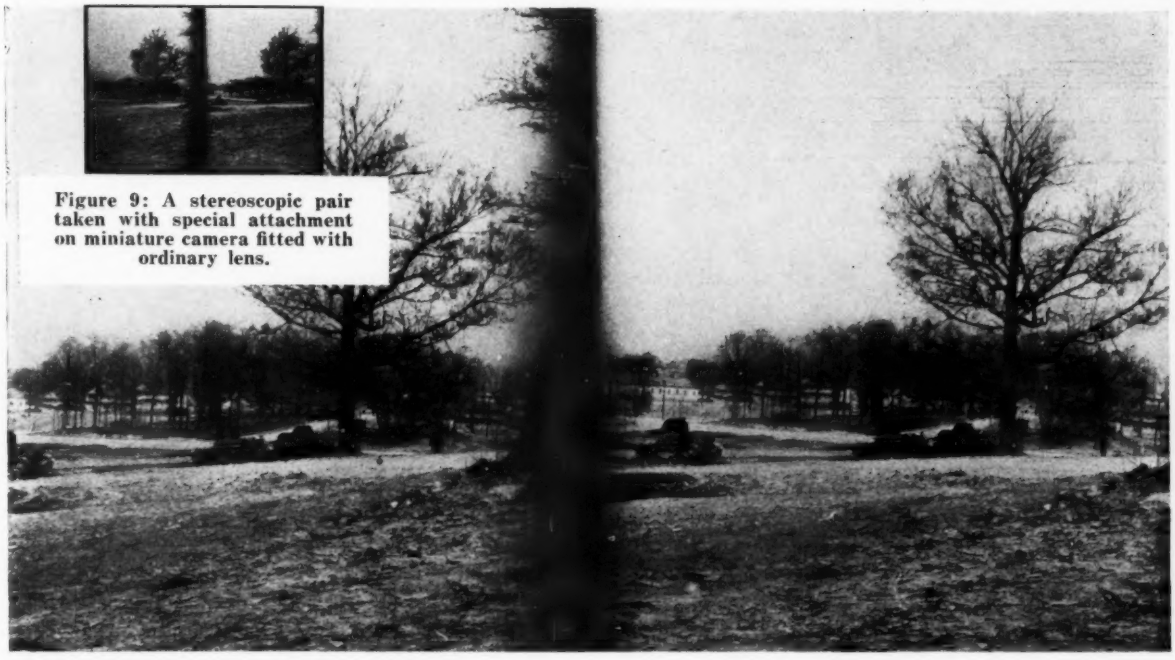


Figure 9: A stereoscopic pair taken with special attachment on miniature camera fitted with ordinary lens.

Figure 10: A stereoscopic pair. Viewed through an enlarging viewer this would appear as an enlarged, three dimensional photograph.

activity may be expected, but where no large forces are anticipated.

At 6:00 AM the patrol reaches a stream of considerable width and depth. Investigation shows that there is but one bridge across the stream in the immediate vicinity. This bridge has been partially destroyed.

The patrol leader believes the bridge may be readily made serviceable for the use of the tanks of the division, but not being an engineer, he does not know the length of time necessary or the materials needed. He summons the cameraman who in fifteen minutes has taken 36 pictures of the damaged bridge from every conceivable angle. While the cameraman is unloading the camera and slipping in a fresh roll of film, the patrol

Figure 11: The same view as shown in figures 9 and 10 but taken with telephoto lens.

Figure 12: Stereoscopic pair taken with telephoto lens.

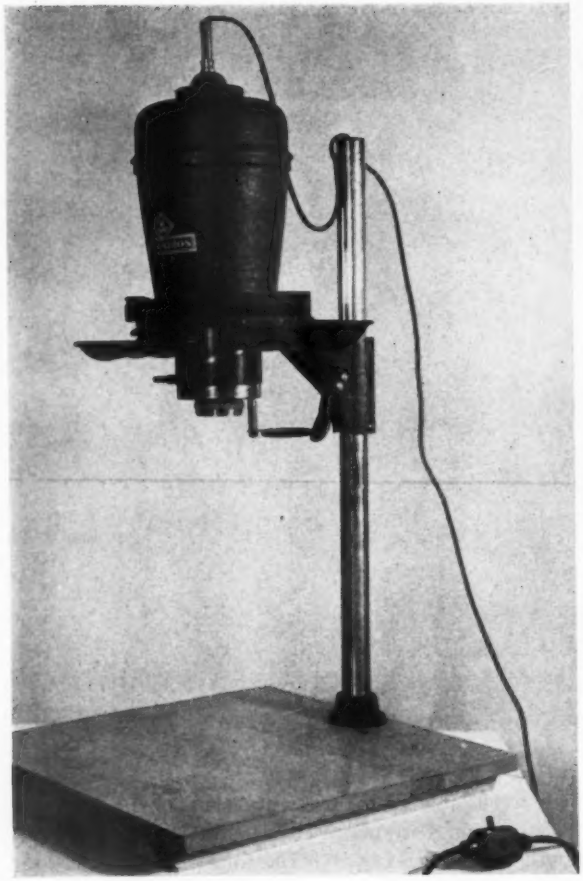


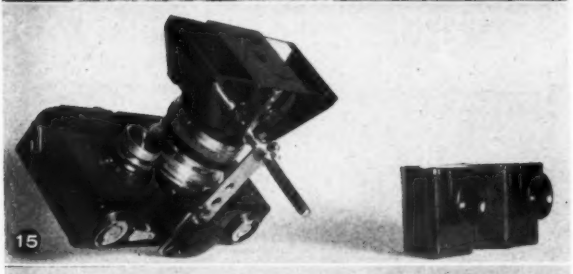
Figure 13: This is the enlarging printer used when prints are desired. Together with all necessary accessories and materials it could be packed in a foot locker. A dark-room tent would be needed.

leader writes a brief report to accompany the pictures. He decides the engineer officer will want the information and pictures without delay, so he immediately starts them back in one of the *peeps*.

Through the study of the photographs the engineer officer will be able to save much valuable time in estimating the extent of repairs necessary to make the bridge passable, and the size of the crew needed. Strength of bridges could also be estimated in a like manner.

With the remainder of his force the patrol leader turns upstream along a dirt wagon road in search of an alternate crossing or crossings. A mile up this road he comes to a narrow place in the stream. It seems as if a crossing could be made here, but the far bank is high and steep. How long will it take to cut the bank down? How many men will be needed for the job? Will it be possible to use *dozers*? The patrol leader does not know, but when the engineers see the pictures he takes they will be able to tell at once. A roll of film is exposed and the patrol continues.

Wherever there appears a terrain feature which presents a problem, out comes the camera and enough



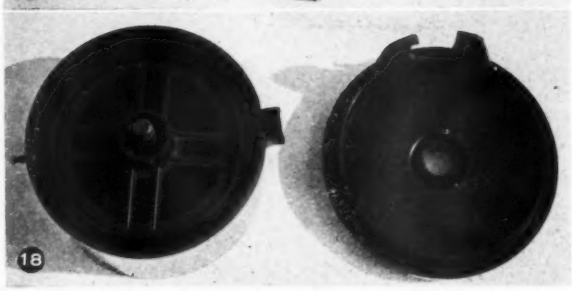


Figure 14: This is the camera in action with ordinary lens. Under combat conditions principals of scouting and patroling with proper use of cover would apply. Note small size of camera.

Figure 15: This is the camera fitted with stereoscopic device. To the right is the stereoscopic viewer. A magnifying viewer could also be used.

Figure 16: Stereoscopic equipment disassembled.

Figure 17: The developing tank. This, with a cloth changing bag and tubes of premixed chemicals is all the equipment needed to develop the films in the field. The tank is about five inches in diameter.

Figure 18: The developing tank disassembled showing interior construction.

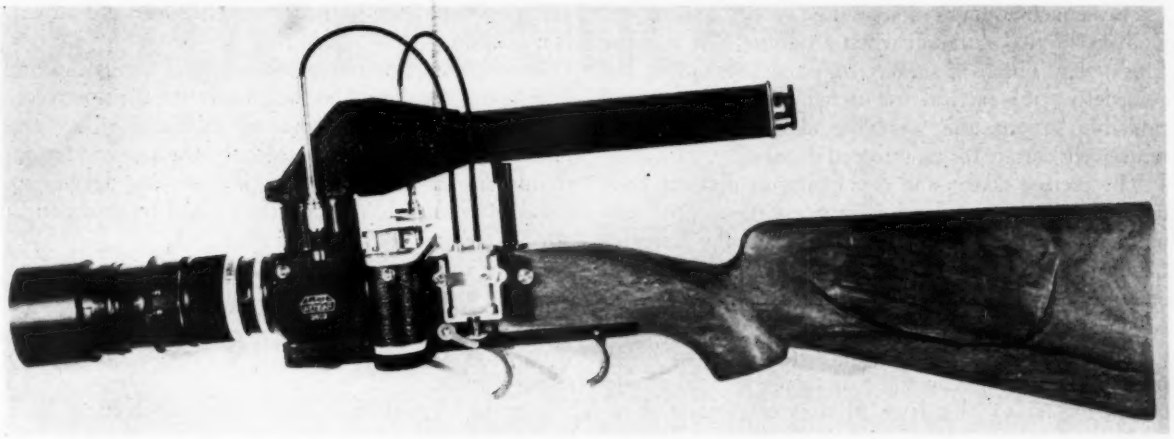


Figure 19: This is the camera gun fitted with the 135 millimeter telephoto lens.

pictures are taken so that the patrol leader is able to pass the buck back to the experts.

His next problem, however, is more difficult. As the leading car reaches the crest of a rise, the driver comes to a sudden stop and signals "enemy in sight." Through a break in the brush he has seen what appears to be a main highway with a sturdy, undamaged bridge across the river.

On the other side of the bridge are a half dozen enemy armored cars partially concealed. Farther down the road are several suspicious clumps of brush which may conceal antitank guns. The force is probably not formidable, but it is certainly too tough for this "sneak" patrol to handle. But the information is there for the camera to see. Quickly it comes into action, but this time a new technique is needed. There is no cover within 300 yards of the bridge and an ordinary camera shot from the patrol's present position would give only a nice picture for a rotogravure page in the home town newspaper.

So the cameraman takes from his kit a telephoto lens and what appears to be a carbine stock. Camera and lens, a lengthy affair, are fitted to the stock and the cameraman crawls to the edge of the clearing. Taking careful aim the cameraman covers the area with "fire" from his martian-like appearing apparatus. He pays particular attention to the bridge itself and to those suspicious-looking clumps of brush. Just for luck he also takes a few shots of the armored car crews. There have been rumors of a crack enemy armored division in this sector, and G-2 will surely be interested in those uniforms and insignia.

Slowly and quietly the patrol withdraws. It is time to head for home. An uneventful morning, surely, but everywhere the patrol has been it has obtained a permanent record of what it saw, and thanks to the magnification of the telephoto lens, some things it could not see.

A snap-on device is also available for the camera to permit the taking of stereoscopic pairs, highly valuable in that they present a three dimensional picture. This may be used with either the regular or telescopic lens and both the device itself and the stereoscope through which it is viewed is small enough to be held in the palm of the hand.

What of the developing and printing processes necessary to make these films available for use?

Developing may be done out of doors in daylight by the use of a light proof changing bag and a developing tank, both small and easily transported. The developing tank is about the diameter of a No. 10 can, and about half as tall. If necessary, the developing can be done on the move and in about an hour the film should be ready for viewing or printing.

With speed vital, it is probable that the pictures would not be printed. Reversal film, which yields a positive image on the film instead of the commonly known negative image would be used, and this could be viewed directly through an illuminated, magnifying viewer about the size of the issue canteen. This would magnify the image to show more detail than would be possible in an 8 x 10 enlargement. The illuminating element could be adapted to plug into any 6, 12, or 24 volt electrical system. It could be used day or night and inside any vehicle, including a tank, or in blackouts. Within 15 minutes after the film reached headquarters it would be ready for viewing.

Likewise the standard printing and enlarging equipment, which could be used when the time for this slightly longer process was desired, would be adapted for use on battery or Homelight current. All of the necessary viewing, projecting and printing and enlarging equipment could be carried in one or two foot lockers. Or a special photo laboratory truck could be provided if the use of the system justified additional motor equipment. Of the feasibility of the plan there is no question. The Army's experiences in battlefield photography during World War I, or to go even farther back, the success of the famous photographer Matthew Brady of Civil War times, prove that.

How much equipment should be carried and where, is always a vital question when anything new is being considered. This is a subject for experimentation, but considering the tactical use to which cameras would probably be put, the following allocation should be tentatively correct for an armored division.

The picture taking and developing equipment itself is small and compact. Each picture taking outfit should include a high grade 35-mm. camera of the Leica or Contax type which would be the backbone of the outfit. The telescopic lens and gun stock mounting would be essential to secure the full use of the equipment and would add little to either bulk or weight. Also included should be a rapid winder for the camera. This would permit the taking of a large number of pictures at almost the speed of a motion picture camera, and would be greatly to be desired in situations where the photographer might come under enemy fire. There should also be the necessary range finders and exposure meters, and filters for using infra-red film to cut through haze.

Two or more sets of developing equipment would be advisable with each camera. One of these would be always kept with the camera; the other would be available when it was desired to develop a roll of urgently needed film while it was being carried back to the point where it was to be examined. These developing kits would be remarkably simple. A changing bag, a developing tank and the necessary chemicals are all that is needed.

Several complete sets of cameras and accessories and developing kits should be included in the division reconnaissance battalion and several in the engineer battalion. Regimental and divisional intelligence sections should also be provided with kits. Viewing devices are so compact and simple that they could be provided in any unit where they were needed.

As for the printing and enlarging equipment, it is doubtful if it would be needed farther forward than division headquarters and so this slightly more bulky equipment should be carried and used by the division signal company.

Lest we be accused of advocating gadgeteering, let it be remembered that any division commander would, if he could, make a personal reconnaissance of every inch of the ground over which he was to operate. This being impossible, the next best means of securing intelligence information for the personal use of the commanding general and his staff must be sought. Photography is already used with great success in the air; it is only reasonable to believe that it could also be used to advantage on the ground. As Foertsch points out in *The Art of Modern Warfare,* "Every development of modern peace time news transmission will also be used in war."

Inkblot Test Picks Soldiers

MEN suitable for the tank and other mechanized units of the armed forces and who can stand up under the strains of modern warfare, can be selected by use of an inkblot test ordinarily used to measure creative imagination or personality, Dr. Z. Piotrowski and Miss B. Candee of the National Youth Administration reported recently.

The test consists of looking at a carefully selected series of black and colored inkblots and telling what sort of picture or object the rather fantastic shape makes you think of. Your answers give psychologists clues to your past experience, interests, and personality.

It was possible, Dr. Piotrowski and Miss Candee reported, to pick the sort of young men who would make good at the sort of mechanical tasks necessary in the mechanized forces, and also to spot the ones who would break down under the strains of military life. In a test group of seventy men, predictions were made successfully for sixty-four individuals, they said.

Here are the personality traits it takes to make good in modern mechanized warfare, as analyzed in the course of this experiment:

1. Ability to carry through a given job carefully and conscientiously without continual prodding.

2. A constitution that is not disorganized by psychic shock but which can absorb or firmly reject such experience.

3. Enough strength of character at a chaotic period of adolescence to keep certain impulses from coming out in action without repressing them from consciousness. He can want to give the foreman a punch without doing it, but still be aware that he wants to.

Ability of the inkblot test to reveal the young man who would break down in a situation of unusual military strain although he might get along all right in ordinary camp life was indicated by six cases, five of which were judged correctly through the test alone. —*Science Digest,* July, 1942.

Battle Practice Course

A BATTLE PRACTICE COURSE for individuals and small units has been found useful in teaching minor tactics, scouting and patrolling and the use of individual weapons in close-in fighting.

The course is designed to present in a realistic manner the problems, confusion, and noise of battle, and to train individuals and small units to react promptly and correctly to minor tactical situations arising on the battlefield. It consists essentially of a series of stations located in a selected training area at each of which a simple tactical problem requiring immediate solution is encountered. A course of twelve or thirteen stations is customary, and the general direction between stations is marked by tape, stakes, or similar method.

The individual or small unit begins at a starting point and progresses from station to station, meeting and overcoming en route each problem presented. These are frequently encountered while troops are crossing or surmounting physical obstacles such as walls, hedges, ditches, streams, or shell holes. Prompt action is required on the part of personnel running the course, but none of the situations should involve more than one or two elementary decisions.

Upon completion of the course, a critique is held and the correct action in each situation pointed out. This critique is of importance to avoid repetition of common errors. Within the judgment of the instructor, a critique may be held at any station of the course. Especially will a succession of critiques be necessary if the stations are used by a demonstration group incident to the instruction of other groups.

As a training expedient the Battle Practice Course possesses several advantages. Specifically, it provides:

Practical training in minor tactics, scouting and patrolling, and the use of individual weapons.

An essential element of realism which serves to stimulate interest and enthusiasm.

A method of presenting common battlefield situations and of demonstrating their proper solution.

Successful completion of the course should serve to imbue the individual with a feeling of confidence in himself and his weapons and in his ability to meet and overcome battle emergencies.

In laying out the course, every effort should be made to provide realistic situations by judicious selection of terrain and the introduction of battle effects and features, such as shell holes, barbed wire, trench systems, the assessment of casualties, mud, dirt, and noise. However, if some of these features are unobtainable initially, the course should be constructed with provision made for later improvement.

The plan and situations shown on next page, is offered merely as a guide for construction of the course. Many other situations can be introduced. Situations involving defense against mechanized and air attack, the use of individual shelter and concealment, and the wearing of the gas mask over a considerable period of time are suggested. Even after initial construction, new and unexpected situations should be introduced from time to time to avoid a stereotyped course.

Every course should include some situations which are suitable for training in night firing. A separate course may be provided for such training.

Before running the course, troops participating should be instructed carefully as to the purpose of the course, its general layout, the mission assigned the unit, and the means employed to simulate tactical situations. The following is a suggested list of instructions to be given to patrols before using the course.

SUGGESTED INSTRUCTIONS TO BE GIVEN TO PATROL PRIOR TO RUNNING THE SMALL UNITS COMBAT COURSE

1. "Sgt. ———, you and these six (6) men will constitute a patrol. You will be given ten (10) minutes, after I finish, in order to inspect your patrol and give them any instruction that you see fit.

2. "The course is marked with yellow stakes—you do not have to follow exactly in the line of stakes but you do have to follow it generally in order to cover all of the area.

3. "You may place your patrol in any formation that you desire and you can change the formation from time to time as you see fit.

4. "The situations that will be presented to you on the course are designed to give you and your patrol instruction and experience in handling many difficult situations.

5. "Some of the situations to be presented to you are as follows:

a. Discovery of an enemy by seeing the flash of metal in the bushes.

b. Discovery of a trench system.

c. Discovery of an enemy behind a bush.

d. Discovery of a machine gun position.

e. Discovery of snipers.

f. Discovery of a gassed area.

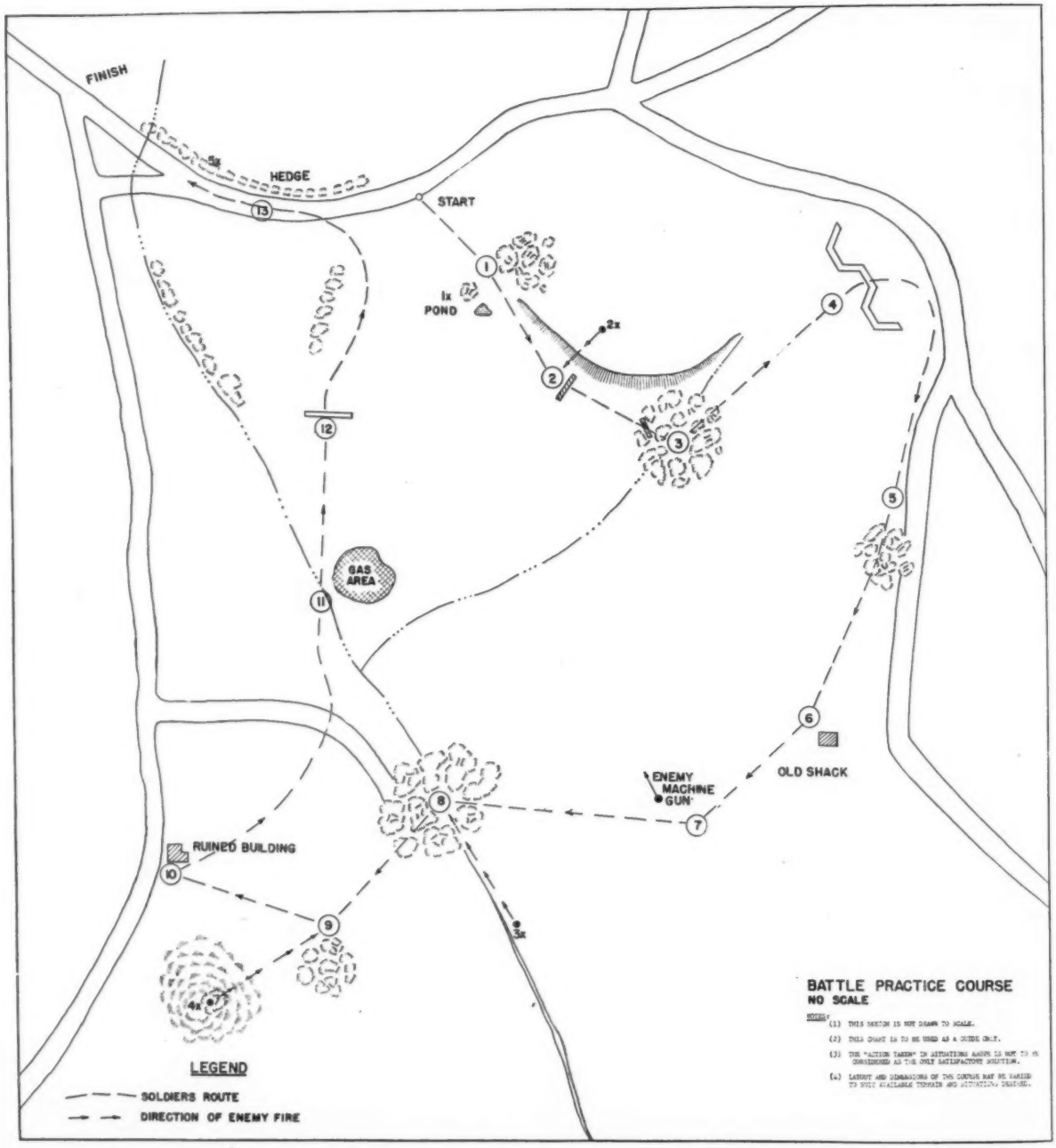
g. Disclosure of enemy by a sudden heavy burst of fire.

6. "You and your patrol will be expected to solve each situation as it is presented to you.

7. "Of necessity there are men stationed at different places throughout the course. Be careful and don't hit them with your grenades, bayonet or blank ammunition. There will be dummies or silhouettes at each position for you to concentrate on. No ball ammunition will be used. Instructors will control action. Cease all movement on hearing one long blast of whistle and await instructions.

8. "Here are your orders:

"Sgt. ———, it is known that the enemy occupies the area in front of our position and it is suspected that the enemy has started a withdrawal. You will follow the route indicated and eliminate such small groups of the enemy as you discover and upon return report to me anything unusual that you have seen. Are there any questions? You now have ten (10) minutes in order to give such instruction to your patrol as you care to."



Battle Practice Course. (Key to numbers presented on opposite page.)

1. *Situation:* When searching a thicket, a flash or movement is seen behind some bushes at 1x about 20 yards away. *Action Taken:* Leading member of patrol fires at object and charges in with fixed bayonet.

2. *Situation:* When investigating an obstacle 3 ft. high with 3 ft. ditch on far side, shot at from 2x, on a bank 100 yards away. *Action Taken:* All members of patrol except right flank men should return fire at once if they are in such a position that they can see the target.

3. *Situation:* Bushy country, movement is seen behind log in path. *Action Taken:* Leading member throws grenade into bushes and leading one or two men close in rapidly using bayonet.

4. *Situation:* Abandoned trench system not sited tactically is discovered in front. *Action Taken:* All should approach close to trench using all cover—leading members throw grenades. At least two members should rush trench at same time. Search dugout in trench system after using grenade in it.

5. *Situation:* Advancing along trail patrol receives heavy fire from large bushy area in front. *Action Taken:* Leading members take cover and return fire, other men flank position, open fire, charge in with bayonet and clean out entire area.

6. *Situation:* Comes upon wooden shed. A man is seen entering same. *Action Taken:* Member of patrol seeing this signals others. Patrol leader has three men cover the shed while one man flanks the building, and throws grenade in it. If fired upon from shed the three covering the flanker should riddle the shed with bullets while the flanker runs forward and throws grenade into building.

7. *Situation:* Observes a machine gun post firing to right front. Soldier's position not observed by gunners. *Action Taken:* Approaches to grenade distance, throws grenade into M.G. position and rushes in with bayonet. Other members cover this action.

8. *Situation:* Mopping up in areas where pockets of resistance are expected, sniped at from point 3x 100 yards on left flank. *Action Taken:* Takes cover—returns fire promptly—signals others—other members flank the sniper if needed.

9. *Situation:* Sniped at from tree at point 4x crest of hill. *Action Taken:* Take cover—return fire—signal others—flank enemy if necessary—this action and the action at #8 might occur at same time if patrol does not take cover when approaching #8.

10. *Situation:* Ruined building showing signs of enemy occupation (may contain booby traps). *Action Taken:* Patrol covers approach of one or two members who carefully investigate building avoiding possible booby traps.

11. *Situation:* Mustard gas area. Observes yellowish substance on ground. (Area marked out by boundary markers and simulated mustard placed in area by unit chemical officer.) *Action Taken:* Leading member detects gas—notifies others—all members don their masks—avoid area by going up wind of it.

12. *Situation:* 6-ft. breastwork, surmounted by 4-ft. wall. As patrol approaches the wall they are fired upon by men stationed behind it. *Action Taken:* All take cover and flank the position.

13. *Situation:* Advancing down road when gap in hedge at 5x reveals one enemy on other side with back to soldier. More enemy invisible behind hedge, but may be seen if a thorough observation is made. *Action Taken:* Reconnoiters and moves forward under cover. Opens fire and charges in with bayonet.

Burma Called No Place for Motor Troops*

NEW DELHI, India, May 30.—A mechanized army was the last thing that should have been used in Burma, General Harold Alexander declared today.

The British commander of the forces in Burma, who has just returned from that scene of Japanese success, said a new army was now being organized, trained and equipped to go back and retake the country, "which must be retaken because it is part of the British Empire."

Alexander said there were only two main roads in Burma on which a mechanized army could be used.

"The army fighting in Burma was designed for continental fighting," he said. "It was mechanized. The last thing you want in Burma is a mechanized army.

"I did my best to replace mechanization by bullock carts. This made the army considerably more mobile but meant new training for troops brought up on mechanized equipment."

The Japanese, on the other hand, were lightly equipped and used coolies and ponies for transport, Alexander said.

*Washington Post, May 31, 1942.

Detachable Map Mount And Table

Designed and Built by
Master Sergeant Eharot and
*Sergeant Leuschner**

THIS compact combination map mount and table results from another instance of necessity being the mother of invention. Without depriving the command scout car of space essential to standard equipment, this sturdy and practical unit is definitely of much value and assistance to the command group for operations in the field.

When not in use, the table folds into a compact displacement of only 30″ x 24″ x 3″, but in a matter of a few seconds can be attached, opened and ready for work. Beneath the table and behind the map board are built-in cabinets to accommodate over twenty-five Map Quadrangles without undue mussing and creasing.

As the accompanying photographs illustrate, experiment has revealed many ways of attaching this unit. Consistent use seems to confirm that the manner as shown in photograph 1 is generally the most advantageous and practical. Under some conditions, however, the attachment may be used as shown in photograph 2. For mobile reconnaissance, it is conveniently used as in photograph 3.

The materials required for construction are simple and few. Other than the hardware, all that is needed are fifteen square feet of ply board and thirty-six feet of ¾″ x 1¾″ mold strip.

Detailed design for construction is shown in the drawing on opposite page.

*Headquarters, 12th Cavalry.

MAP MOUNT

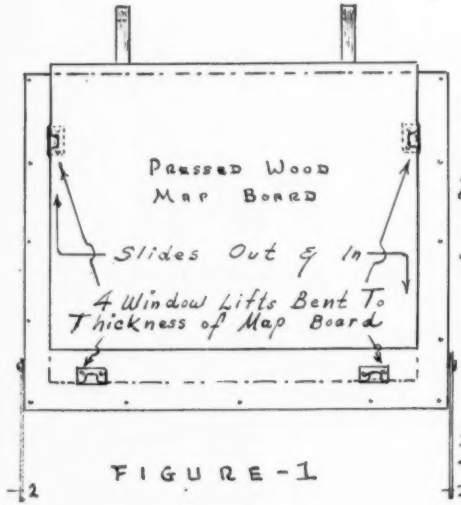


FIGURE - 1

FRONT VIEW

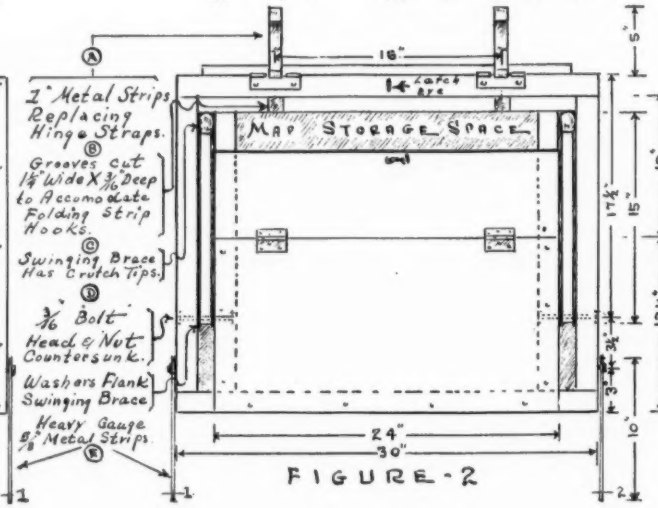


FIGURE - 2

REAR VIEW

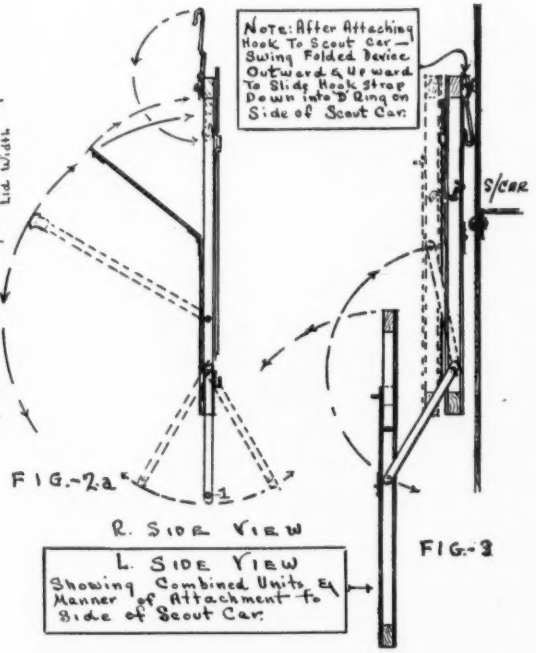

Note: After Attaching Hook To Scout Car — Swing Folded Device Outward & Upward To Slide Hook Strap Down into D Ring on Side of Scout Car.
S/Car
1
1

FIG.-2a

R. SIDE VIEW

FIG.-3

L. SIDE VIEW

Showing Combined Units & Manner of Attachment to Side of Scout Car.

WORK TABLE

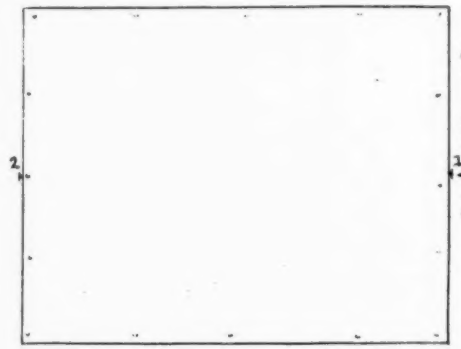


FIGURE - 4

TOP VIEW

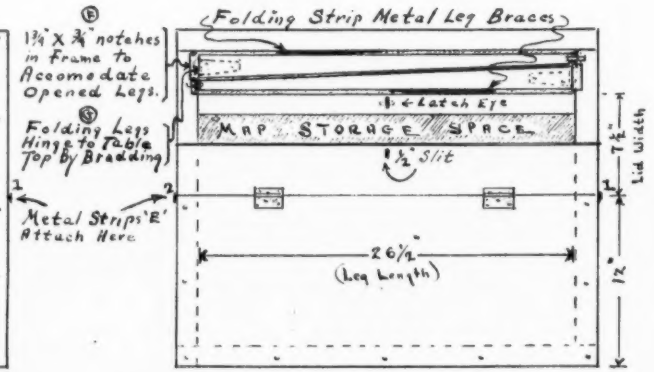


FIGURE - 5

BOTTOM VIEW

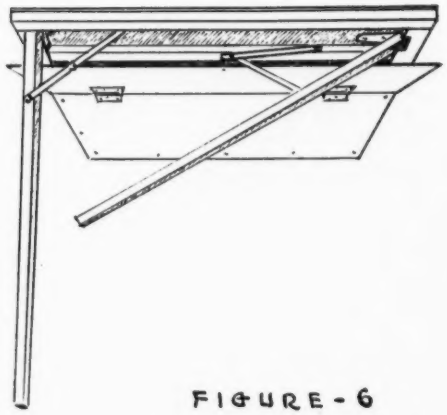


FIGURE - 6

LEG ATTACHMENT

Keeping the Situation Map Clear

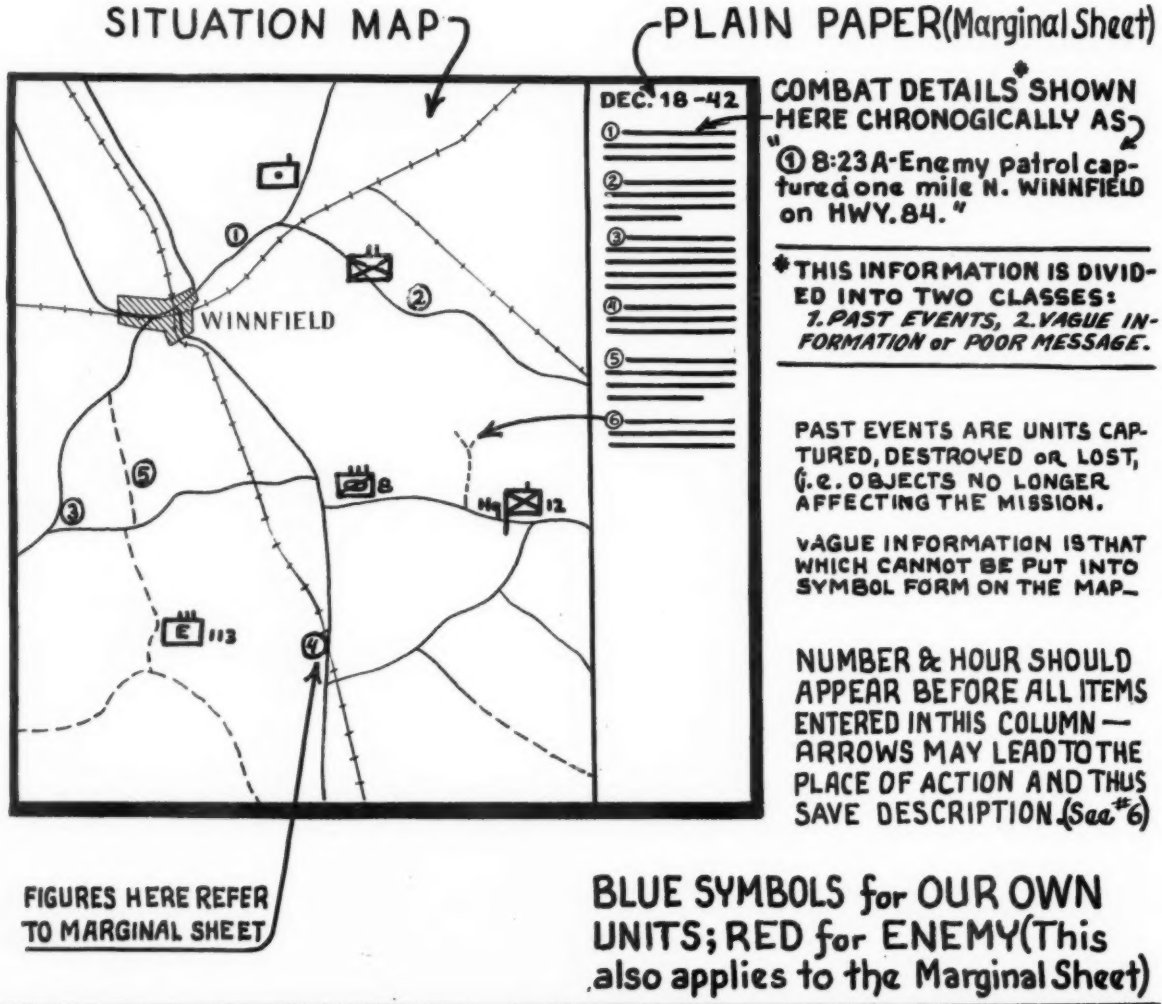
By Lieutenant Robert B. Rigg, 106th Cavalry

THE situation map should NOT be devoted to the history of an operation, but to the future of it. Therefore, do not regard enemy units captured or destroyed as important items to go on the situation map. Apply only the enemy units which are functioning—these are the ones which can affect your mission. Show all of the threats—let the journal record past actions.

It is a tendency to show all information and all details. The average situation map for a regiment or smaller unit is not large enough for a myriad of detail. It must contain the essentials only—furthermore, these maps contain both S-2 and S-3 data. If they are detailed, they are conglomerate—and in this state they are not readable.

We have situation maps because, "a picture is worth a thousand words." However, this picture can be worse than a thousand words unless it is stripped of the non-essentials.

A unit commander should be able to look at a situation map and see a situation—not a jumbled and confused group of symbols. We know how difficult it is to portray many units and actions on a map when the


SITUATION MAP
PLAIN PAPER(Marginal Sheet)
WINNFIELD
DEC. 18-42
COMBAT DETAILS* SHOWN HERE CHRONOGICALLY AS
"① 8:23A-Enemy patrol captured one mile N. WINNFIELD on HWY. 84."
*THIS INFORMATION IS DIVIDED INTO TWO CLASSES: 1. PAST EVENTS, 2. VAGUE INFORMATION or POOR MESSAGE.
PAST EVENTS ARE UNITS CAPTURED, DESTROYED OR LOST, (i.e. OBJECTS NO LONGER AFFECTING THE MISSION.
VAGUE INFORMATION IS THAT WHICH CANNOT BE PUT INTO SYMBOL FORM ON THE MAP.
NUMBER & HOUR SHOULD APPEAR BEFORE ALL ITEMS ENTERED IN THIS COLUMN — ARROWS MAY LEAD TO THE PLACE OF ACTION AND THUS SAVE DESCRIPTION. (See #6)
FIGURES HERE REFER TO MARGINAL SHEET
BLUE SYMBOLS for OUR OWN UNITS; RED for ENEMY (This also applies to the Marginal Sheet)
KEEP IT SIMPLE - USE ABBREVIATIONS IN MARGINAL SHEET. CLARIFY, DONT CONFUSE. USE QUESTION MARKS WITH A SYMBOL or LINE WHEN THE INFORMATION IS DOUBTFUL.

Keeping a Situation Map

space is small. To that end the situation map may be supplemented by a marginal sheet which will carry the non-essentials in a form least confusing to the observer.

The Situation Map

This will contain symbols for the active friendly and enemy units, installations, etc. Symbols will be clearly drawn and the hour of location applied below the symbol if necessary to include it. The usual rules of keeping it up to date will apply.

The Marginal Sheet

The marginal sheet is a strip of paper, about width of a message blank, which is placed on one side of the map. This bears the burden on non-essentials which do round out the picture but too often clutter up the map. Let us term them "combat details."

Entered on the marginal sheet, and numbered in order with the hour of the event are the combat details. These will be recorded as they occur. A number identical to the one an item bears on the marginal sheet is placed over the spot on the map where the event occurred. These numbers should be encircled and they should be small. Again, as on the map itself, use red for enemy and blue for our own.

An arrow may run from this column to the point of action in lieu of placing a number over it. However, too many of these will spoil the simplicity of the situation map.

Combat details should be stated in the most brief form. At the top of the marginal sheet should be placed the date. When a column is completely filled the sheet should be replaced with a fresh one, and the old one destroyed when information is recorded on the journal.

Combat Details

Combat details as entered on the marginal sheet are divided into two classes. The first can be termed "past events." This includes losses, movements, and items of past operational nature. An enemy unit destroyed or a friendly organization captured are examples of a "past event." The second type of combat detail will be "vague information." This type demands a written, though short, explanation by virtue of its character. In general, it is information of future value which cannot be shown in symbol form such as "patrol of 3 men seen near ——." Too often it is facts poorly stated by a bad message. Generally, these cannot be put in symbol form on the map but must be shown somewhere because the items constitute a threat to our mission. This is the real use for the marginal sheet because it is not practical to write on a map. The accompanying illustration gives the arrangement of a situation map with a marginal sheet. Two marginal strips may be used if desired. There are no cut and dried regulations for keeping situation maps. Field Manual 30-5 provides a general outline for the map. Different units and organizations of various sizes require a variety of situation maps. However, they must all be readable. That is the marginal sheet's main value—it insures clarity.

Summary

Pins or tacks in a situation map are not practical as too often it is necessary to make overlays from the map. A map covered with a hard transparent surface and marked with wax pencils is the best, as it allows for the erasures and changes which must be made to keep the map up to date. Likewise this is a good waterproof covering. Situation maps should not be overly large or, in any manner, clumsy. If one can be carried under the arm it is of the most convenient size.

Let the situation map show two things: 1. ENEMY CAPABILITIES, in terms of military symbols of active enemy units. 2. OUR MEANS OF COMBATING THE ENEMY, in terms of symbols of friendly units. The former will be supplied by S-2, the latter by S-3.

★ ★ ★

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MANUSCRIPT DEADLINE DATE NEXT ISSUE, SEPT. 1st.

Combat Forms Revised

By Pfc. Gene Gach, 11th Cavalry

THE motorcyclist wheeled his bike into a sand hill, stopped and gave his message to the message center, which was concealed in a clump of mesquite. A dismounted carrier brought the message to the Commanding Officer of the Command Post.

After passing on the details of the message to his subordinates, and giving his various troops orders to seek new positions, the Commanding Officer ordered his Command Post Party to mount. Their horses cut a floury trail in the bleached alkali face of the Mexican border desert. The enemy was hot on their trail.

Once stationed in a new and presumably safer command post, the Commanding Officer turned the message over to the S-2 Sergeant who was to enter it in the Work Sheet, the Unit Journal. This he did and the mock war continued its bloodless way. The message had been, "Estimated two troops red cavalry moving south 6 miles due west of Signal Mountain at a trot at 2:10 P.M. (Signed) Foof" 2:14 P.M.

The first thing the S-2 Sergeant had to put in was the entry under the label "time." There were a few time elements involved. What should he enter here? Either of these five choices:

1. The time the enemy was sighted.
2. The time the message was sent.
3. The time the message was received by the message center.
4. The time the message reached the Commanding Officer.
5. The time the message was entered on the work sheet.

Each of these time elements might be important to a General or G-2 Officer examining the work sheet for a clear picture of the movement. The S-2 Sergeant entered the time that message was sent, listed the message, put Foof's name under "Represented by," and jotted "P N S T" under "Disposition" thereby indicating the contents of the message had been posted on the situation map, noted, and that the staff and troops had been notified of its contents.

An umpire signalled that the S-2 Sergeant was a casualty of war and the combat forms were passed on to an S-2 Clerk. The war went on, was won or lost, and the time came, as it must to so many Command Post Exercises, for an inspecting officer from a higher headquarters to inspect the S-2 paper forms. Everyone, the inspecting officer generously conceded after making his

UNIT JOURNAL

UNIT_____
LOCATION_____
DATE_____

NO.	ORIGINATION	ADDRESSEE	HOW SENT RECEIVED	TIME SENT	TIME REC'D	TIME ENTERED	MESSAGE or ITEM	DISPOSITION

examination, was to be congratulated upon having accomplished his mission in a soldierly fashion.

But, he asked, who was "Foof"? Everyone in the 11th Cavalry knew that Foof was the Commanding Officer of the Machine Gun Troop, the visiting inspector was told. It would seem that the man's office as commander of a troop were more important than his name, pointed out the man from higher headquarters.

Not all the compilers of the Combat Forms had accorded the same interpretation to the "Time" column. In this space some entered the time the action took place, some the time the message was sent, others the time the message was received, and still others the time the message was entered on the Combat Form. This, of course, added very little to the clarity of the picture the Combat Form was intended to convey.

These fallibilities prompted the S-2 personnel to wonder if their Combat Forms were perfect beyond need for improvement. This sentiment seemed to be confirmed during a recent situation in which local forest rangers augmented the forces of the 11th Cavalry in a searching party. Looking at the Unit Journal to orient themselves on what had happened before they arrived on the scene, the rangers each gave different interpretations to the time element column, and, being relative strangers to the regiment, were not enlightened by the entry of the names. Had each name been followed by such notes as "C.O., 'A' Area Patrol," or "O.P., 'B' Area," these entries would have told the rangers the story.

Accordingly, the S-2 Office of the 11th Cavalry have introduced some slight revisions on the old Unit Journal and Work Sheet Forms which are intended to render them fool proof, easier to keep, easier to read, and more informative. No additional data need be written on the new forms but that which is recorded is so arranged as to make each entry a self contained and self explanatory message.

The first item on the Unit Journal, (following the unedited column for the serial number) is now "Origination." Here, as befits the beginning of a story, is entered the sender's name and his office. In addition to Foof's name there will be a description of his rôle in the action. He will not be listed as Foof but as "Foof, C.O., MG Tr."

The next item is now "Addressee" and in this space we will insert the name and the office of the man getting the message, such as "Col. Herr, C.O., 11th Cav."

"How Sent or Received," the next item, is considered vital because it is often important to the picture to know whether the information was relayed by radio, mounted messenger, parachute, motorcycle or pigeon carrier. One word does the trick here.

In successive spaces are now listed the time the message was sent, the time it was received and the time it was entered. No divergencies of ideas on which is the most important time can now muddle the picture.

The rest of the Unit Journal (a space for the actual message and its disposition) remains unaltered.

The Work Sheet has been edited, accordingly, though in less detail because that particular form is kept up to the minute at all times and must often receive attention on the run.

Experience with the new forms indicates that they call for no more time or work to complete than the former ones. The data is simply broken up into columns before it reaches the "Incidents, Messages, Orders, etc." column. This, besides making the entire picture easier to visualize, takes up less space on the paper and saves turning the page so many times, a trifling detail to mention but a matter of some importance in the field where split seconds determine the difference between defeat and victory.

It is hoped that to even a person who has never before seen a combat form the revised Unit Journal, properly recorded, will reveal an intelligible, easily read, chronologically correct, and interesting report of the action.

★ ★ ★

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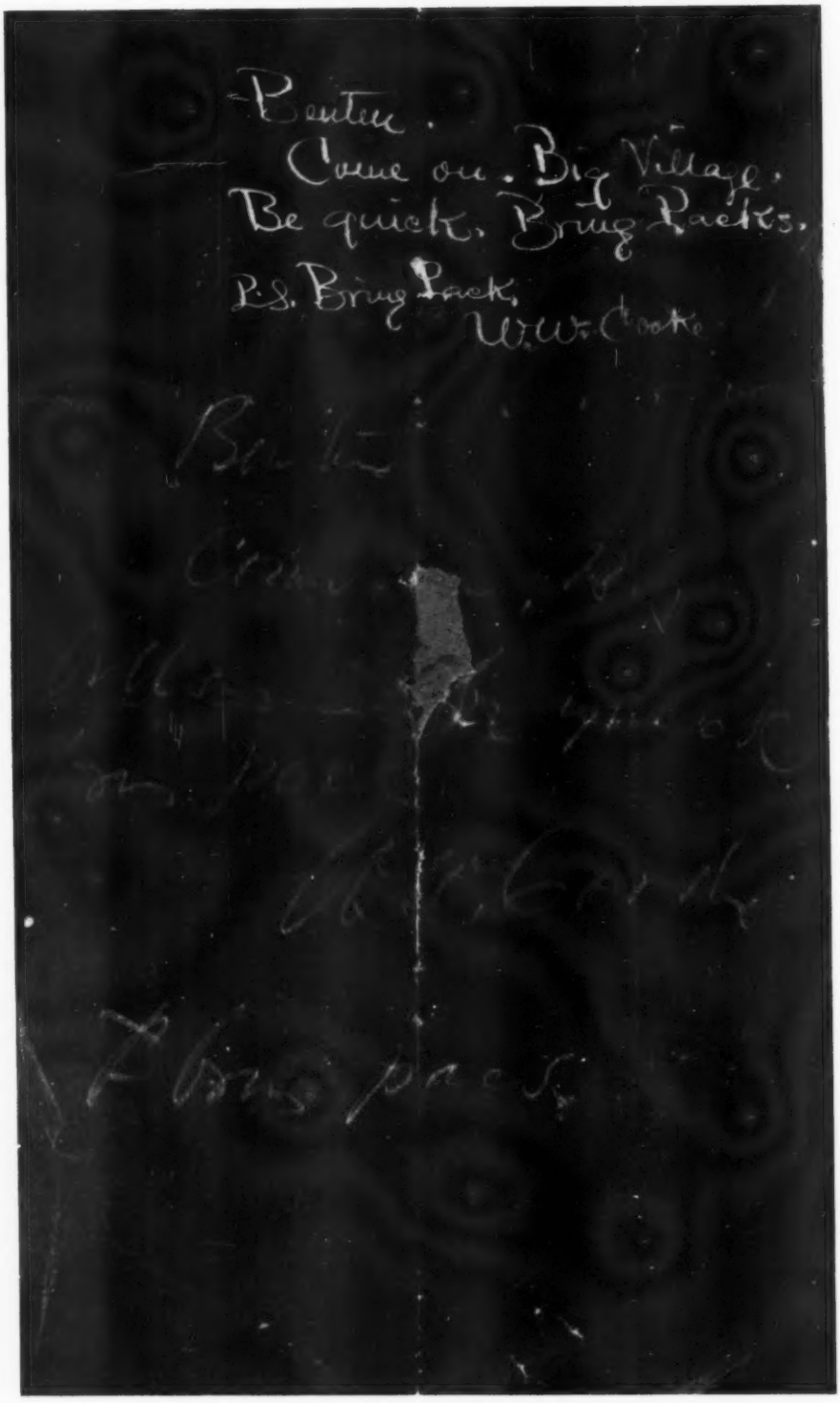


The original message, actual size. (Reproduced by courtesy of the U. S. Military Academy Library, West Point.)

THE LOST IS FOUND

Custer's Last Message Comes to Light!

By Colonel W. A. Graham, Retired

TWENTY YEARS ago this month, after searching for him many months, I found John Martin, the man who carried Custer's last message; the famous message to Benteen that bid him to "come on and be quick" and to "bring the packs."

The dispatch of that message marked the crisis of the battle of the Little Big Horn, where Custer, and nearly half the Seventh Cavalry, found death instead of glory waiting for them at the trail's end.

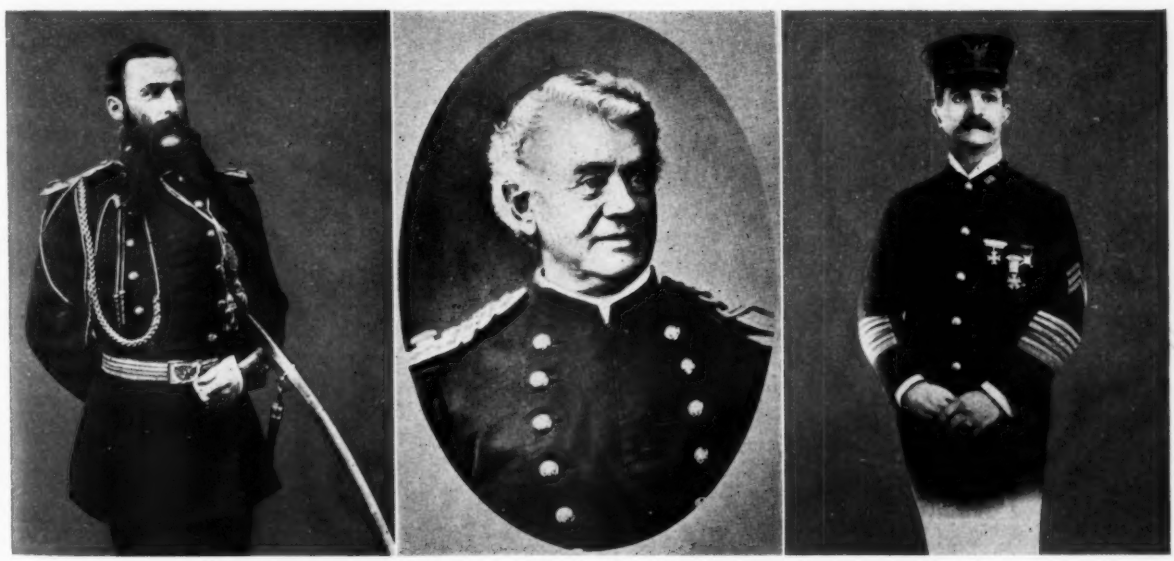
Having read avidly all War Department records of this dramatic fight, in which the American Indian achieved his greatest triumph over the American soldier, I keenly wished to write the story of that message.

The messenger was found; but the message itself had disappeared. I turned the records inside out in efforts to locate it, until I became a nuisance to The Adjutant General. Then, early in 1923, Major Fred Benteen, son of the gallant officer to whom the message was sent, told me that all his father's papers were destroyed when their home had burned long years before; that the famous message with many another relic of the Little Big Horn had then gone up in smoke. And so I ceased my search, and wrote John Martin's story of how he carried Custer's final message to Benteen. The CAVALRY JOURNAL published it, with comments by General Edward S. Godfrey, a distinguished participant in the battle, in its July, 1923,* number.

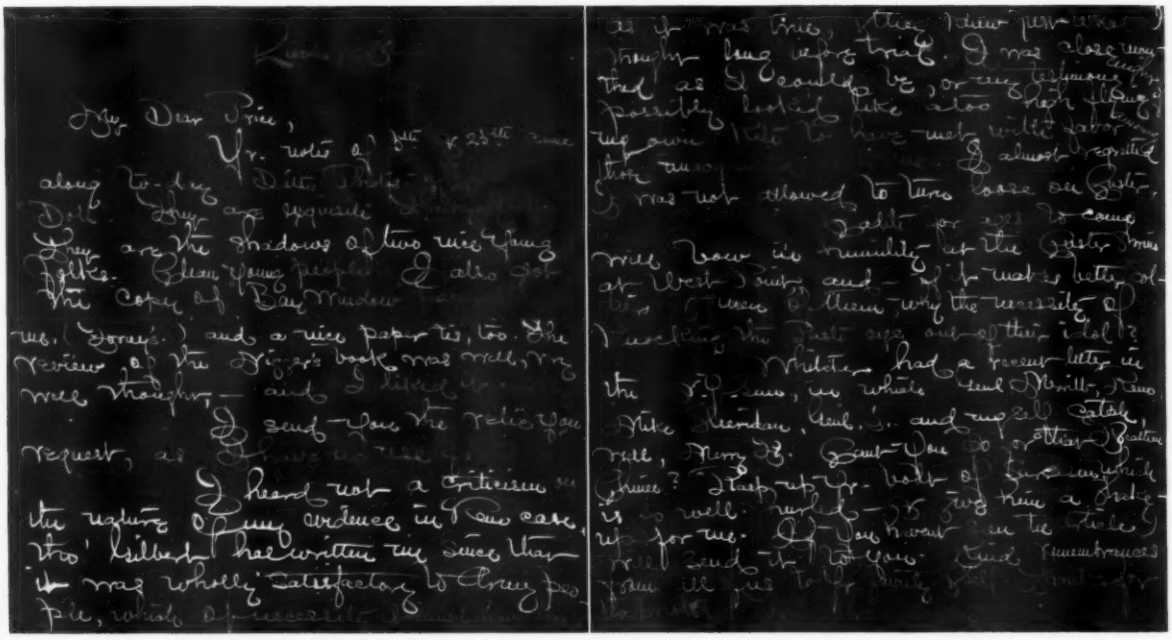
It now appears that the younger Benteen was mistaken. The message had not gone up in smoke as he supposed, for it has lately become known that after producing it to supplement his testimony before the Court of Inquiry held in 1879 to determine whether Major Reno, Custer's second in command, had been guilty of misconduct at the Little Big Horn, the elder Benteen had presented it to a friend, a certain Captain Price of Philadelphia. Apparently he told no one about it, for Godfrey also believed the paper destroyed by fire. Thus lost since 1879—Custer's last message has now been found, and through the commendable efforts of Colonel Charles Francis Bates, Retired, it now rests safe in the library at West Point.

The story of its recovery is interesting. For the past fifty years it has been in the possession of the family of a New Jersey collector who acquired it from Price, and who, so far as I can learn, valued it only as a curio. How many other historic documents, I wonder, now accounted for as lost, might be restored to public record

*Out of print.



Left: Lieutenant W. W. Cooke, Regimental Adjutant, who wrote the message. *Center:* Captain F. W. Benteen, to whom the message was sent. *Right:* John Martin, the man who carried the message. Portrait made at the time of his retirement in 1906. (Benteen and Martin photos by D. F. Barry.)



Benteen's letter to Robert Newton Price in which Benteen presents the original Cooke message to Price.

if only the collections of relic hunters could be made to give up their secrets?

The original message, with other treasures of the collector, was recently advertised for sale at auction. Colonel Bates thus learned of its existence, and arranged with the owner to secure it for West Point. There can be no doubt of its authenticity. Not only is the script of the message itself plainly the hand of Lt. W. W. Cooke, the 7th's regimental adjutant, who died with Custer within an hour of the time he wrote it, but the unmistakable penmanship of Benteen himself, once seen, never forgotten, attests its genuineness in the "translation" made for his friend Price's benefit, and which he inscribed above its pencilled words.

It was far from easy to get Martin's story of his ride to Benteen. He was very old and very feeble when I found him deep in the jungle of Brooklyn's Italian quarter. His memory was as feeble as his body, and it was only after I had made three separate visits, each time reading to him (for he was almost blind) his testimony before the Reno Inquiry, that recollection of that fateful June day of 1876 came back. But when it did come back, it came with a wealth of incident and detail that was surprising. And so I wrote his story, just as he told it to me, and he signed it.

Between visits to Martin I made an official trip to New Orleans in an attempt to adjust a dispute between the Government and the local "Dock Board" over the title to lands upon which the Army's multi-million dollar warehouses had been built during the World War. Having permission to stop over in Atlanta, I there saw Major Benteen, and it was then he told me that the famous message had been burned: but he told me also that he had some letters written by his father during the campaign of 1876 that had escaped the flames only because his mother had them safely stored away in a fireproof vault. He had never read them, he said, nor shown them to anyone, but he would let me see them; and he did. Two of those letters were written less than ten days after the battle—the first July 2d—the other July 4, 1876.

The letter of July 4th is of especial significance. In it Benteen tells not only of the receipt of Custer's last message, but recounts the harrowing experience through which the regiment had passed; and it tells also all that then was known of what had happened to Custer and his immediate command. But little more has been discovered since. Those two letters Major Benteen permitted me to take back to Washington, where photostatic copies were made. The letter of July 4th I both showed and read to General Godfrey, saying to him as I did so—"this letter is of historical importance." The general replied—"It is far more than that. It was written long before any controversy had arisen over the way the battle was conducted, and under circumstances that give it special credit. It is history itself."

Omitting only such parts as are purely personal, here the letter is:

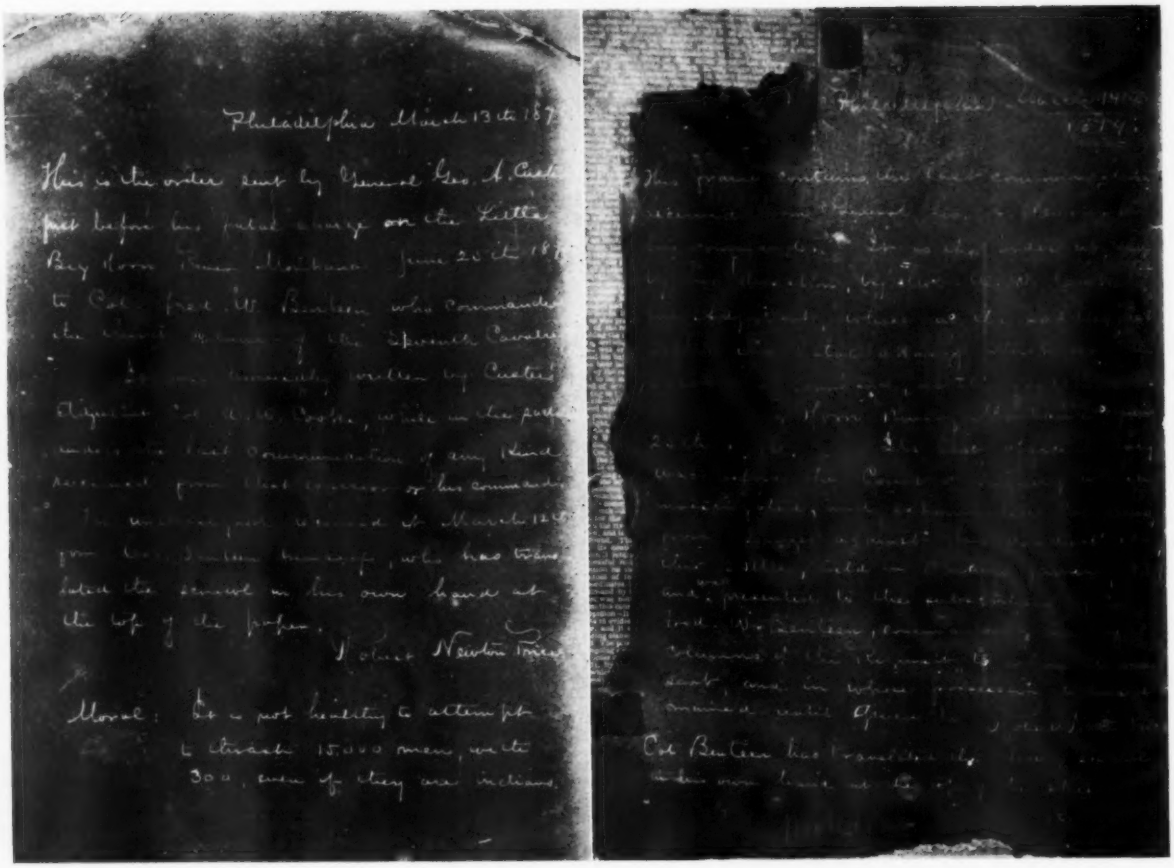
> July 4th 1876. Montana,
> Camp 7th Cavalry, Yellowstone River,
> Opposite mouth of Big Horn River.
>
> My ——— Darling,
>
> . . . I will commence this letter by sending a copy

of the last lines Cooke ever wrote, which was an order to me to this effect.

> Benteen. Come on. Big village. Be quick, bring packs. W. W. Cooke.
>
> (P.S. Bring pac-s) He left out the *k* in last packs.

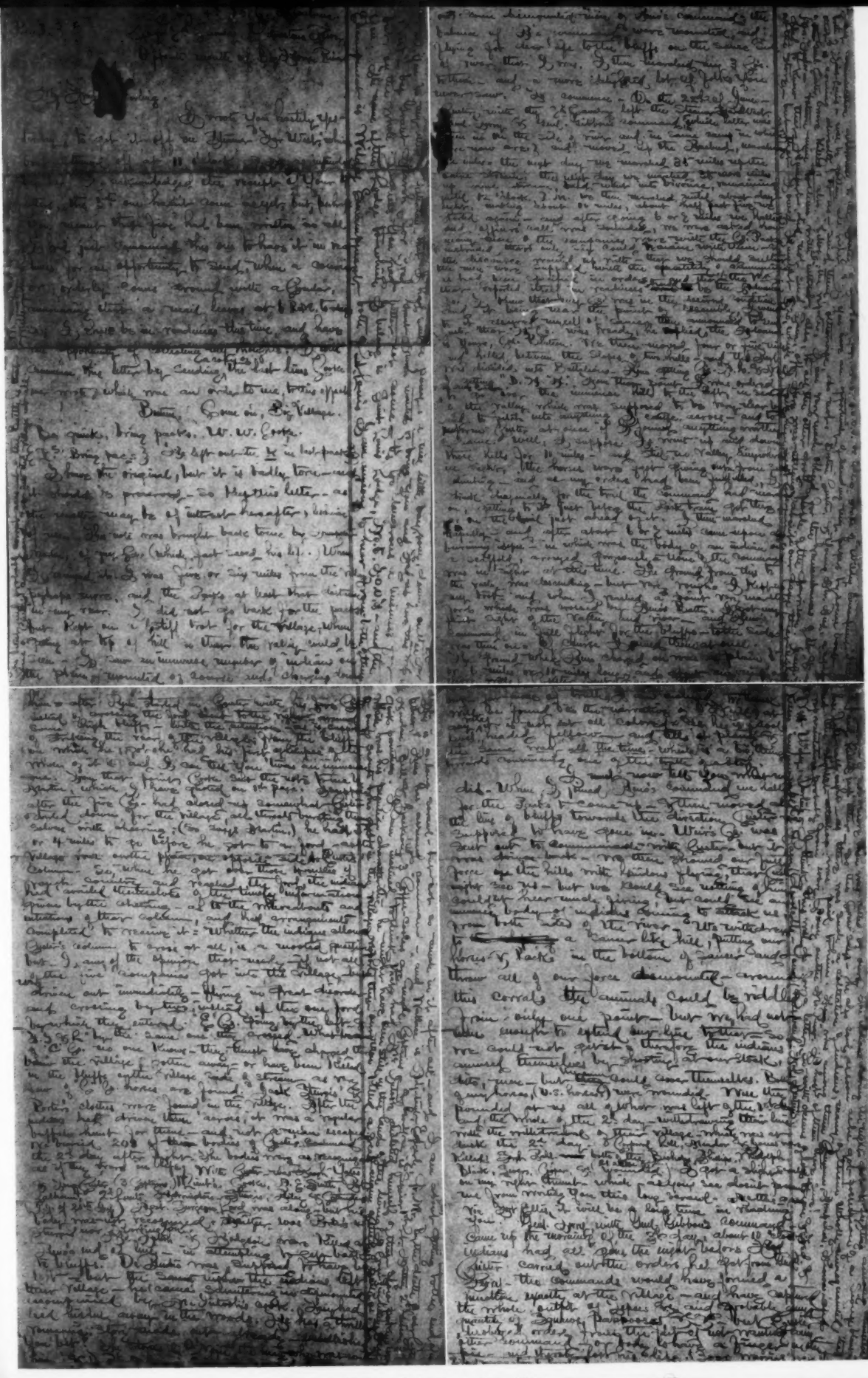
I have the original, but it is badly torn and it should be preserved. So keep this letter, as the matter may be of interest hereafter, likewise of use. This note was brought back to me by Trumpeter Martin of my Co. (which fact saved his life.) When I received it I was five or six miles from the village, perhaps more, and the packs at least that distance in my rear. I did not go back for the packs but kept on a stiff trot for the village. When getting at top of hill so that the valley could be seen—I saw an immense number of indians on the plain, mounted of course and charging down on some dismounted men of Reno's command; the balance of R's command were mounted, and flying for dear life to the bluffs on the same side of river that I was. I then marched by 3 Co's. to them and a more delighted lot of folks you never saw. To commence—On the 22d of June—Custer, with the 7th Cavalry left the Steamer "Far West," Genl. Terry and Genl. Gibbon's command (which latter was then in on the side of river and in same camp in which we now are) and moved up the Rosebud, marching 12 miles—the next day we marched 35 miles up the same stream. The next day we marched 35 more miles up same stream and went into bivouac, remaining until 12 o'clock P.M. We then marched until about daylight, making about 10 miles; about half past five we started again—and after going 6 or 7 miles we halted and officers' call was sounded. We were asked how many men of the companies were with the Co. Packs. and instructed that only six could remain with them—and the discourse wound up with—that we should see that the men were supplied with the quantity of ammunition as had been specified in orders and that the 1st Co. that reported itself in readiness should be the advance Co. I knew that my Co. was in the desired condition and it being near the point of Assembly I went to it, assured myself of same, then announced to Genl. Custer that "H" Co. was ready; he replied the Advance is yours, Col. Benteen. We then moved four or five miles and halted between the slopes of two hills and the Regt. was divided into Battalions—Reno getting Co's. "A. G. and M." I getting "D. H. K." From that point I was ordered with my Battn. to go over the immense hills to the left, in search of the valley, which was supposed to be very near by and to pitch into anything I came across—and to in-

Left: General Custer, who sent the message. *Right:* Sitting Bull. (Photo by D. F. Barry.)



Letters of authentication by Robert Newton Price to whom the message was given by Captain Benteen.

form Custer at once if I found anything worthy of same. Well, I suppose I went up and down those hills for 10 miles—and still no valley anywhere in sight, the horses were fast giving out from steady climbing—and as my orders had been fulfilled I struck diagonally for the trail the command had marched on, getting to it just before the Pack train got there—or on the trail just ahead of it. I then marched rapidly and after about 6 or 7 miles came upon a burning tepee—in which was the body of an indian on a scaffold, arrayed gorgeously —None of the command was in sight at this time. The ground from this to the valley was descending but very rough. I kept up my trot and when I reached a point very near the ford which was crossed by Reno's Battn. I got my first sight of the Valley and river—and Reno's command in full flight for the bluffs to the side I was then on—Of course I joined them at once. The ground where Reno charged on was a plain 5 or 6 miles or 10 miles long and about one mile or more wide; Custer sent him in there and promised to support him —after Reno started in, Custer with his five Co's instead of crossing the ford went to the right—around some high bluffs—with the intention—as is supposed—of striking the rear of the village; from the bluff on which he got he had his first glimpse of the whole of it—and I can tell you 'twas an immense one. From that point Cooke sent the note to me by Martin, which I have quoted on 1st page. I suppose after the five Co's had closed up somewhat Custer started down for the village, all throats bursting themselves with cheering (So says Martin). He had 3½ or 4 miles to go before he got to a ford—as the Village was on the plain on opposite side to Custer's column. So, when he got over those 4 miles of rough country and reached the ford, the indians had availed themselves of the timely information given by the cheering—as to the whereabouts and intentions of that column, and had arrangements completed to receive it. Whether the indians allowed Custer's column to cross at all, is a mooted question, but I am of the opinion that nearly—if not all of the five companies got into the village—but were driven out immediately—flying in great disorder and crossing by two instead of the one ford by which they entered. "E" Co. going by the left and "F. I. and L." by the same one they crossed. What became of "C" Co. no one knows—they must have charged there below the village, gotten away—or have been killed in the bluffs on the village side of stream—as very few of "C" Co. horses are found. Jack Sturgis and Porter's clothes were found in the Village. After the indians had driven



Peterson's letter to his wife

them across, it was a regular buffalo hunt for them and not a man escaped. We buried 203 of the bodies of Custer's command the 2d day after fight—The bodies were as recognizable as if they were in life. With Custer—was Keogh, Yates and Tom Custer (3 Captains) 1st Lieut's. Cooke, A. E. Smith, Porter, Calhoun (4) 2d Lieuts. Harrington, Sturgis, Riley and Crittenden (J. J. of 20th Inf.) Asst. Surgeon Lord was along—but his body was not recognized. Neither was Porter's nor Sturgis' nor Harrington's.

McIntosh and Hodgson were killed at Reno's end of line—in attempting to get back to bluffs. DeRudio was supposed to have been lost, but the same night the indians left their village he came sauntering in dismounted, accompanied by McIntosh's cook. They had hidden away in the woods. He had a thrilling romantic story made out already—embellished, you bet! The stories of O'Neill (the man who was with him) and De R's of course, couldn't be expected to agree, but far more of truth, I am inclined to think, will be found in the narrative of O'Neill; at any rate, it is not at all colored—as he is a cool, level-headed fellow—and tells it plainly *and the same way all the time*—which is a big thing towards convincing one of the truth of a story.

I must now tell you what we did—When I found Reno's command. We halted for the packs to come up—and then moved along the line of bluffs towards the direction Custer was supposed to have gone in. Weir's Company was sent out to communicate with Custer, but it was driven back. We then showed our full force on the hills with Guidons flying, that Custer might see us—but we could see nothing of him, couldn't hear much firing, but could see an immense body of indians coming to attack us from both sides of the river. We withdrew to a saucer like hill, putting our horses and packs in the bottom of saucer and threw all of our force dismounted around this corral; the animals could be riddled from only one point—but we had not men enough to extend our line to that—so we could not get it—therefore the indians amused themselves by shooting at our stock, ditto, men—but they, the men, could cover themselves. Both of my horses (U. S. horses) were wounded. Well they pounded at us all of what was left of the 1st day and the whole of the 2d day—withdrawing their line with the withdrawal of their village, which was at dusk the 2d day. Corporal Loll, Meador and Jones were killed; Sergt. Pahl, both of the Bishops, Phillips, Windolph, Black, Severs, Cooper, etc. (21 altogether) wounded. I got a slight scratch on my right thumb, which, as you see, doesn't prevent me from writing you this long scrawl. As this goes via Fort Ellis it will be a long time reaching you. Genl. Terry, with Genl. Gibbon's command—came up the morning of the 3d day, about 10 o'clock. Indians had all gone the night before. Had Custer carried out the orders he got from Genl. Terry, the commands would have formed a junction exactly at the village, and have captured the whole outfit of tepees, etc. and probably any quantity of squaws, pappooses, etc. but Custer disobeyed orders from the fact of not wanting any other command—or body to have a finger in the pie—and thereby lost his life. (3000 warriors were there).

Margin:

. . . Boston Custer and young Mr. Reed, a nephew of Genl. Custer, were killed, also Kellogg, the reporter. . . .

This is a long scrawl—but not so much in it after all—and I am about getting to the end of my tether. Reno has assumed command and Wallace is Adjutant. Edgerly, Qr. Mr. By the death of our Captains, Nowlan, Bell and Jackson, 3 "coffee-coolers" are made Captains and Godfrey is Senior 1st Lt., Mathey 2d, Gibson 3d. Quick promotion. I am inclined to think that had McIntosh divested himself of that slow poking way which was his peculiar characteristic, he might have been left in the land of the living. A Crow indian, one of our scouts who got in the village, reported that our men killed a great many of them—quite as many, if not more, than was killed of ours. The indians during the night got to fighting among themselves and killed each other—so the Crow said—he also said as soon as he got possession of a Sioux blanket, not the slightest attention was paid to him. There was among them Cheyennes, Arrapahoes, Kiowa and representatives probably from every Agency on the Mo. River. A host of them there sure.

The latest and probably correct account of the battle is that none of Custer's command got into the village at all. We may not be back before winter, think so very strongly.

Well—Wifey, Darling, I think this will do for a letter, so with oceans of love to you and Fred and kisses innumerable, I am devotedly,

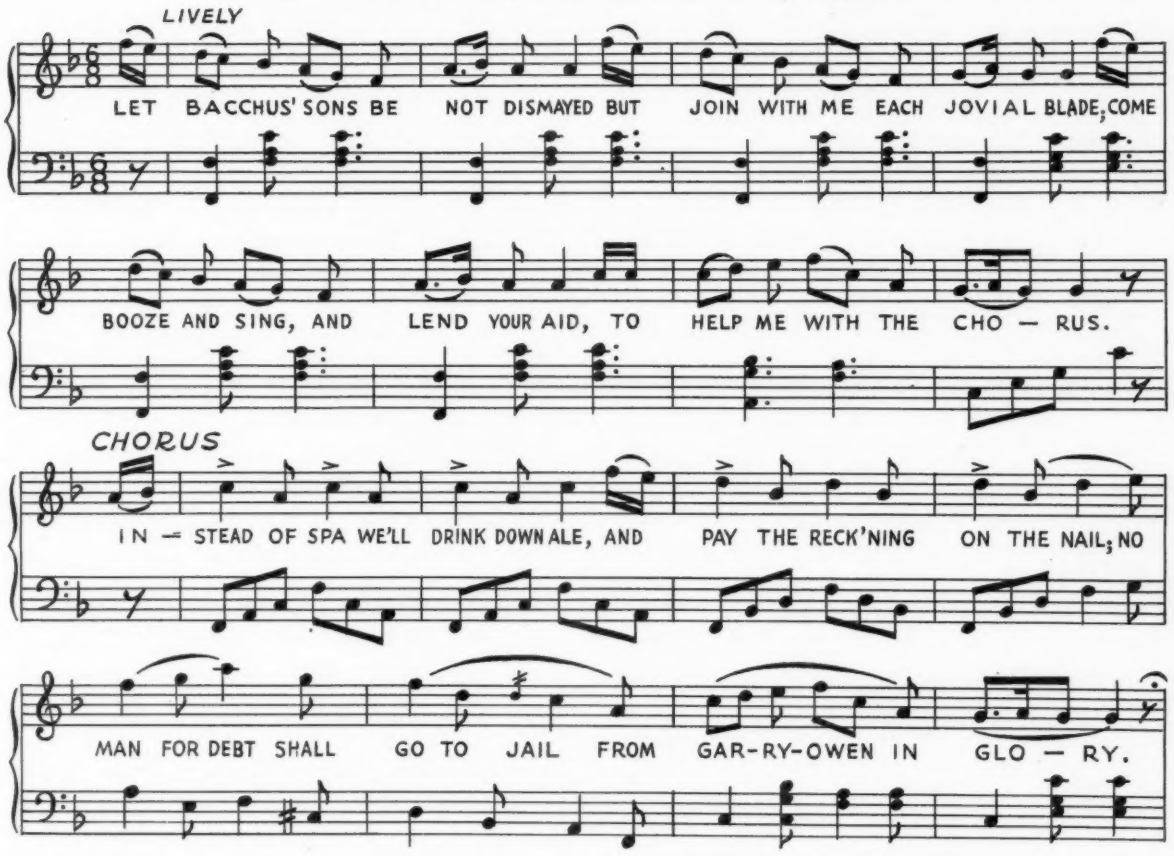
Your husband

FRED BENTEEN.

★ ★ ★ ★

One of the biggest lessons to come out of the war on the Eastern Front—and one which has not yet received due recognition over here—is that horse cavalry is still a potent weapon when used in force.

GARRY OWEN*

Regimental Battle Song of Seventh U. S. Cavalry Regiment

LIVELY
LET BACCHUS' SONS BE NOT DISMAYED BUT JOIN WITH ME EACH JOVIAL BLADE; COME
BOOZE AND SING, AND LEND YOUR AID, TO HELP ME WITH THE CHO — RUS.
CHORUS
IN — STEAD OF SPA WE'LL DRINK DOWN ALE, AND PAY THE RECK'NING ON THE NAIL; NO
MAN FOR DEBT SHALL GO TO JAIL FROM GAR-RY-OWEN IN GLO — RY.

THE origin and composer of the tune, quick march or drinking song, entitled "Garry Owen," has been a moot question. After no little research, it has been definitely established that the music is not that of Scottish strain, but without a doubt of Irish origin.

It has been used by several Irish Regiments as their quick march; the Fifth Royal Irish Lancers stationed in the suburb of Limerick called "Garryowen," (the Gaelic word, meaning "Owen's Garden") used it as their drinking song. The words can hardly be called elevating, but depict the rollicking nature of the Lancers while in town on pay day in search of their peculiar style of "camaraderie." The following verses are set to the music of "Garryowen."

1.

Let Bacchus' sons be not dismayed
  But join with me each jovial blade;
Come booze and sing, and lend your aid,
  To help me with the chorus.

CHORUS:

Instead of Spa[2] we'll drink down ale,
  And pay the reck'ning on the nail;
No man for debt shall go to jail
  From Garryowen in glory.

2.

We are the boys that take delight in
  Smashing the Limerick lights when lighting;
Through the streets like sporters fighting
  And clearing all before us.

3.

We'll break windows, we'll break doors
  The watch knock down by threes and fours;
Then let the doctors work their cures,
  And tinker up our bruises.

4.

We'll beat the bailiffs out of fun
  We'll make the Mayors and Sheriffs run;
We are the boys no man dares dun,
  If he regards a whole skin.

*This article appears in Appendix No. 2, of the book: Keogh and Commanche, by Edward S. Luce.

[2] "Spa," meaning mineral water.

5.

Our hearts so stout have got us fame
For soon t'is known from whence we came;
Where'er we go they dread the name,
Of Garryowen in glory.

Thomas Moore (1779-1852), the celebrated Irish Poet, had a somewhat different idea for fitting words to the song, and in several books of music compositions dealing with Irish folksongs, we find the following words under the title of "The Daughters of Erin."[3]

1.

We may roam thro' this world, like a child at a feast,
Who but sips of a sweet, and then flies to the rest;
And, when pleasure begins to grow dull in the east,
We may order our wings and be off to the west:
But if hearts that feel, and eyes that smile,
Are the dearest gifts that Heaven supplies,
We never need leave our own green isle,
For sensitive hearts, and for sun bright eyes.

CHORUS:

Then remember, wherever your goblet is crown'd,
Thro' this world, whether eastward or westward you roam,
When a cup to the smile of dear woman goes round,
Oh! remember the smile which adorns her at home.

2.

In England, the garden of Beauty is kept—
By a dragon of prudery placed within call;
But so often this unamiable dragon has slept,
That the garden's but carelessly watch'd after all.
Oh! they want the wild sweet-briery fence,
Which round the flowers of Erin dwells;
Which warns the touch, while winning the sense,
Nor charms us least when it most repels.

3.

In France, when the heart of a woman sets sail,
On the ocean of wedlock its fortune to try,
Love seldom goes far in a vessel so frail,
But pilots her off, and then bids her good-bye.
While the daughters of Erin keep the boy
Ever smiling beside his faithful oar,
Through billows of woe, and beams of joy,
The same as he look'd when he left the shore.[4]

I have tried to ascertain the approximate date when this number was first introduced into this country, and when it was first used as a military quickstep by the United States Army. As far as it is known, it was most likely introduced between the years of 1861 and 1866. The first instance that we know of its use as a military quickstep by any military organization was in the early part of 1867, when it was played by the Seventh United States Cavalry Band. It was then that the music was adopted as the regimental air by that organization.

The late Mrs. George A. Custer, widow of General Custer, had several times remarked to me that she first heard her husband hum and whistle the piece a short time after the regiment was organized at Fort Riley, and that she believed the late Brevet Lieutenant Colonel (Captain) Myles W. Keogh, Seventh Cavalry, was in some way connected with introducing the song to the regiment.

While this cannot be taken as an absolute fact, still, as we look further into the matter, it is not at all unlikely. Captain Keogh's father was an officer in the Fifth Royal Irish Lancers, and the birthplace of Captain Keogh, in Orchard, Carlow County, Ireland, is but a short distance from Limerick on the banks of the River Shannon, from whence much music and poetry has emanated. When one takes into consideration the close connection between Captain Keogh and the Irish Lancers, and his companionship with Captains Henry J. Nowlan, Charles C. DeRudio of the Seventh Cavalry, as well as Generals O'Keefe and Coppinger, all of whom served in the Papal Guard before they came to this country and joined the Union Army in 1861, one cannot help but believe that such a boon comrade ship had a very great part in bringing the song, "Garry Owen," to this country and to the Seventh Cavalry.

The tempo and the spirit of the music is definitely comparable to the cadence of the mounted service, and instills a certain "Esprit de corps" in the heart of every Seventh Cavalryman.

It is a known fact that the Seventh Cavalry Band played "Garry Owen" at the Battle of the Washita, November 27, 1868. The following is a quotation from the late Captain Francis M. Gibson's narrative:[5]

> "And now we listened intently for the signal notes of "Garry Owen," our charging call, and the death march as well of many a comrade and friend. At last the inspiring strains of this rollicking tune broke forth, filling the early morning air with joyous

[3] "The Daughters of Erin"—words by Thomas Moore (1779, 1852). Air: Garryowen. Edited and arranged by Granville Bantock, found in "One Hundred Folksongs of All Nations," published by Oliver Ditson Company, Boston, Mass., on pages 16 and 17 copyright MCMCI, by Oliver Ditson Company. In their "Notes on the Songs:" page XI—: "No. 11 The Daughters of Erin, Ireland. The air of "Garryowen to which MOORE has written these words, is undoubtedly an Irish dance-tune, and, as far as we know, was first printed in a collection of Scotch dance-music, Gow's Repository of Original Scotch Dances, 1802.

It first became popular in a pantomine-Harlequin Amulet—which was played in 1800, and is often used at the present day as a military quickstep. Garryowen is a suburb of Limerick, and is said to mean Owen's Garden. Authorities: Boosey: Songs of Ireland, p. 44. Moffat: Minstrely of Ireland, p. 296. Brown and Moffat: Characteristic Songs, etc., p. 42. Bergreen: Folks-Sange og Medodier, Vol. IV, No. 35.

[4] From Poetical Works of Thomas Moore, Printed in England at the Oxford University Press—1865. Also in "Characteristic Songs and Dances of All Nations," by James Duff Brown, Published by Bayley & Ferguson, in 1901, London, England: Garryowen is best known as a dance or a military quickstep, but we have added Moore's Lively words, written for the number of Irish Melodies which appeared in 1807. (Found in the Widener Library, Harvard University, Cambridge, Mass., and the Library of Congress, Washington, D. C.)

[5] See Illustrated Review of the 7th U. S. Cavalry, 1910.

music. The profound silence that had reigned through the night was suddenly changed to a pandemonium of tumult and excitement; the wild notes of "Garry Owen," which had resounded from hill to hill, were answered by wilder shouts of exultation from the charging columns."

The following quotation is from a letter written by the late Private Theodore W. Goldin, Troop "G" Seventh Cavalry, a Medal of Honor man, a few days before he died.

This letter was addressed to Chaplain (Major) George J. McMurry, Seventh Cavalry, with reference to the Battle of the Little Big Horn River, June 25, 1876.

"On the day we moved out from Powder River with the pack train, the Band was posted on a knoll overlooking the river, where they played merrily while we were fording the river. After all were across and the six troops formed we took up the march towards Tongue River and the Rosebud, the Band broke into the rollicking strains of "Garry Owen" which as usual brought a hearty cheer, and its notes were still ringing in our ears as we left the river bottoms and the Band was lost to sight as we wound up a wide ravine. The strains of the old Regimental Air were the last notes from the old Band that fell on the ears of General Custer, the Staff and many officers and men of the old Regiment."

Prior to the Seventh Cavalry's departure for the Philippines in 1905, Chief Musician J. O. Brockenshire, of the Seventh Cavalry Band rewrote the music of "Garry Owen," and also composed the stanzas and chorus:

1.

We are the pride of the army,
And a regiment of great renown,
Our name's on the pages of history
From sixty-six on down.
If you think we stop or falter
While into the fray we're goin'
Just watch the step with our heads erect
When our band plays "Garry Owen."

Chorus:

In the Fighting Seventh's the place for me,
It's the cream of all the cavalry;
No other regiment ever can claim
Its pride, honor, glory and undying fame.

2.

We know no fear when stern duty
Calls us far away from home,
Our country's flag shall safely o'er us wave,
No matter where we roam.
'Tis the gallant Seventh Cavalry,
It matters not where we're goin'
Such you'll surely say as we march away:
And our band plays, "Garry Owen."

3.

Then hurrah for our brave commanders!
Who lead us into the fight.
We'll do or die in our country's cause.
And battle for the right.
And when the war is o'er,
And to our home we're goin'
Just watch the step, with our heads erect,
When our band plays, "Garry Owen."

In conclusion, as to the origin of the tune of "Garry Owen" it is believed that the below authority can be taken as being authentic:[6]

48 Bruntsfield Gardens — Telephone 54271
Edinburgh, I. O. — 14-10-38.

The Society of Corresponding Members of the Royal Schools of Music, London. (The Royal Academy of Music & the Royal College of Music.)

Captain Edward S. Luce,
7th U. S. Cavalry,
Fort Bliss, Texas.

My Dear Sir:

Mr. John Miller, Registrar of the University of Edinburgh passed on to me your letter of Sept. 16th, 1938 in which you ask for information regarding "Garry Owen," your Regimental Tune. I have looked the matter up with no little pleasure to myself and trust helpfulness to you.

"Garry Owen"—(spelled "Garryowen" one word with us) is a very old Irish Tune, quite traditional, as no records of its author can be found. Thomas Moore the great Irish Poet wrote the words set to it, "We may roam thro' this world." It also appears in a "Book of Old Irish Songs," published by John Purdie, 83 Princes St., Edinburgh, early last century to the words "The Bosom that beats to a Brother's distress." (R. A. Smith Collection.)

Military Connection:

It was the Regimental Air of the Royal Irish Regiment, which is now disbanded; was also used by the 5th Royal Irish Lancers as a Quick March, Irish Guards, as a warning for parade. Royal Irish Rifles had it as their Regimental March originally, but was changed later.

The Queens Own Royal West Kent Regiment and the Durhan Light Infantry also used it occasionally.

In case there may be any doubt that we are thinking of different tunes, I enclose a short musical quotation of the Tune as we know it U. K. but I expect it will be quite correct, and I trust the information I have been able to give you will suffice for your purpose.

Very sincerely yours,
(Signed) Wm. Martin Hobkirk,
Hon. R. C. M. and Diploma of Raff
Conservatories Frankfort-a-Main.

[6]The original of this letter is in the Historical Files of the 7th U. S. Cavalry, Fort Bliss, Texas.

Toujours Pret

THE date is the 12th of June, 1942. This day marks the close of another chapter in the colorful history of a colorful regiment. The troops are assembled for the last mounted review of the oldest regiment of cavalry in the Army of the United States. This is a parting salute, rendered by the officers and men of the Regiment to its horses. It is *au revoir*.

One hundred and six years ago this month the headquarters of the Regiment was organized, and three years later received its baptism of fire in the Seminole Campaigns in the Florida Everglades. It has seen service in every American war since. Its hoof prints have been marked on the scorched deserts of the Southwest, and its blood has darkened the mountain snows of Montana. Its Standards have flown in the Philippine jungles, in the mountains of Mexico, and on the battlefields of France in World War I. In that war, units of the Regiment were the only cavalry units of the American Army to serve mounted overseas.

Now a cloud of yellow dust rises to the south as the troops march on the field. The Commanding Officer, mounted upon his great brown gelding, has taken his post as Reviewing Officer, and at his rear are the officers of his staff.

The troops come on to the line and halt. The Commander of Troops presents them to the Regimental Commander. They exchange salutes, and together gallop down the line of troops for an inspection. They look upon cavalrymen who are splendid soldiers, hardened by the saddle, and bronzed by the desert sun. Horses, too, are physically fit, in good flesh and filled with spirit. To the older horses this review is a routine which they know well. To the hundred odd remounts, it is another new experience in the strange world of the military. These young horses paw the ground occasionally, and twist their necks constantly, ever on the alert.

The Regimental Commander and Commander of Troops then resume their posts, and the Adjutant summons the officers and guidons to the center. All officers ride forward in two lines followed by their troops guidons. They halt before the Regimental Commander, and guidons are dipped. The Commander of Troops dismounts and offers to the Regiment a handsome silver vessel to commemorate the termination by the Regiment of 106 years of continuous mounted service.

The Commander accepts on behalf of the Regiment. His message carries praise for work well done. He enjoins everyone to carry with him always the traditions of the Regiment, and to maintain its honor in whatever service he may be required to render.

The officers and guidons, rejoin their troops to pass in review. The troops swing down the field in a column of platoons at the trot, with raised pistols. The proud Regimental Standard is dipped in salute, and we see its 29 battle streamers, commemorating as many engagements fought by this historic regiment.

The ranks are straight, and the trot of the horses beats to the cadence of the field music. A buglar sounds GALLOP, MARCH, and the troops break into a smooth, rhythmic gallop around the field again.

The rifle and service troops gallop off the field in a curtain of dust, clearing the way for the gun troops to dash into action as a spirited climax to this review and parade. Instead of fighting always mounted, our cavalry troops have developed the methods of Bedford Forrest and Phil Sheridan. Mobility and fire power are ever our main characteristics, and the shock of that fire power is delivered from ground positions, taken by cavalry troops more rapidly than can be done by any other.

The Machine Gun Troop dashes forward now. Its troopers leap from their saddles and fling their guns into position. Now the signal—UP, meaning that they are ready to fire. The troop can lay its guns on a target within 11 seconds after the command is given to go into action from a gallop. The crisp command, OUT OF ACTION, brings fast response, and the troop gallops away to new missions.

The Special Weapons Troop, which can bring its heavy 81mm. mortars from horseback into action in considerably less than a minute, is poised on line, awaiting the signal to charge. Its gun is the heaviest pack in the cavalry. Now they move at the gallop, and men and guns hit the ground split seconds apart. Out of action now, and this troop mounts and rides into the dust—and on beyond into the mists of an uncertain future, following the hoof prints of gallant legions gone on before.

Animal transportation knows no end, and goes on forever. It maintains the mobility of armies over shell-torn wastes, mangled terrain, mud and snow. A salute to our noble charges! A toast to that time when mounted traditions and associations will be renewed!

Through more than a century of service under the Stars and Stripes, officers and men of this Regiment have fought and bled and died for duty, honor, country. They have scaled the rugged heights of mountains, and fought in the desert fastness. Through dust and scorching heat of summer, through snow and bitter cold of winter, the Regiment has known victory—and tasted defeat. Today they march toward new adventures in the unknown of tomorrow, taking with them the tradition, the heritage, and the determination to be in the future—as their predecessors were in the past—*Toujours Pret*.

NON COM QUIZ*

THIS QUIZ is a brief test of the knowledge which every cavalry noncommissioned officer should have of the problems and employment of pioneer and demolition units. Score 10 points for each whole question answered correctly. A perfect score is 110 and the lowest passing grade is 82. After answering all questions, refer to solution on next page.

TEST

QUESTIONS

1. You are the corporal in command of the pioneer and demolition squad of a reconnaissance platoon on a reconnaissance mission. Your squad is following the second reconnaissance section in moving north on the unimproved north-south road shown on the situation sketch. The first reconnaissance section of your platoon is moving to the north on the main highway to your east. As the reconnaissance section command car reaches point "C," the point car reports the presence of a wire roll road block at "D." The leader of the reconnaissance section instructs you with your squad to remove the block since the terrain does not permit a detour.

a. What hostile measures for the protection of the road block will your squad probably have to overcome?

b. In general, how will you accomplish your mission?

2. While your squad is engaged in removing the road block, which you find to be undefended except for a few scattered antitank mines, a terrific explosion is heard to the east. The first reconnaissance section reports by radio that upon its approach, a hostile mechanized patrol withdrew across bridge "A" and immediately thereafter the bridge was blown up.

a. What is the probable situation at bridge "B" as indicated by this information?

b. What immediate action should be taken?

3. After careful scrutiny from concealment near bridge "B," you cannot detect any evidence of explosive charges on the bridge, nor the presence of a demolition guard. What is your next action?

4. If explosive charges had been detected, but the location of the demolition guard not determined, what action should have been taken?

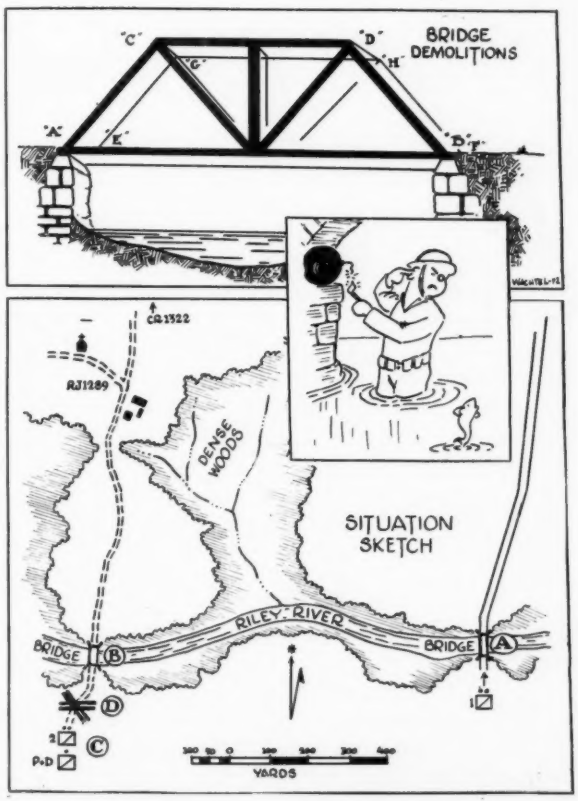
5. The bridge stringers (beams parallel to the longer axis of the bridge and which directly support the flooring) are steel I-beams, ten inches deep and twenty feet long. All component parts of the bridge are in good condition. For what load do you consider the bridge to be safe?

6. The reconnaissance section and the pioneer and demolition squad have advanced to the vicinity of CR 1322 when the following order is received from your platoon commander: "Air observation reports a large hostile armored force twenty miles north of the RILEY RIVER, advancing to the south at twenty-five miles per hour. This division will prepare a defensive position south of the RILEY RIVER line. The pioneer and demolition squad now accompanying you is to prepare BRIDGE 'B' over the RILEY RIVER for demolition and thereafter constitute the demolition guard. The demolition is to be completed on order of the Commanding Officer, Nth Infantry, or upon approach of the enemy in force. One car from the first section will provide security for the pioneer squad. Continue your advance." Noting the terrain five hundred yards north of bridge "B," what measure should be taken to gain more time and protection for the preparation of the bridge for demolition?

7. If you decide to lay a mine field, what should be the arrangement of the mines within the field?

8. What two measures must be taken for the protection of friendly vehicles?

9. What is the employment of the car providing security?



*Prepared under the direction of The Department of Tactics, The Cavalry School.

10. On examining bridge "B," you find it to be a through steel truss as in the sketched titled "Bridge Demolitions." Indicate on the sketch where charges should be placed to destroy the trusses, and indicate by an asterisk over the locations, which charges, if any, should be delayed.

11. If there are twelve square inches of cross-sectional area of steel in the upper chords of the trusses (members AC, CB, DB, and EG, GH, HF), and four square inches in the lower chords (members AB and EF), how much TNT will be necessary to cut all four corners of the bridge?

★ ★ ★

Solutions

1. *a.* At a well defended road block, all of the following protective measures may be present and must be overcome:

(1) Fire of small arms and antimechanized weapons.

(2) Antipersonnel mines.

(3) Antitank mines seeded throughout the obstacle. These may be activated; that is, embody antipersonnel features.

(4) Contamination by means of persistent chemical agents.

b. The corporal requests the leader of the reconnaissance section to dispose his section so as to support best the pioneers by fire. The pioneers, well dispersed, work forward to the obstacle, taking advantage of all available cover. A grapnel attached to a hand line is thrown across the wire rolls; the pioneers take cover as the grapnel and line fall on the wire rolls in event that antipersonnel mines are tripped. The line is then retrieved from a covered position and the road block pulled aside. Antitank mines are disarmed if the proper method is known for the type of mine found, or, if not, the mines are destroyed in place by individual charges of explosive, or lines are attached to the mines and they are pulled out of the way from covered positions. Buried mines are located by probing and then removed by the foregoing means, or are destroyed in place by the detonation of a "bangalore" torpedo (explosive filled pipe). Protective clothing and decontaminating agents must be employed against persistent agents. (See change No. 2, FM 5-30.)

2. *a.* Bridge "B" is probably also prepared for demolition.

b. Both leaders send all available riflemen forward on foot with the greatest secrecy and speed to dispose of the demolition guard and secure the bridge before their presence is discovered, and before the guard can receive orders to execute the demolition of the bridge.

3. The squad leader and his pioneers examine the bridge and abutments minutely for concealed explosive charges, or mines. (See FM 5-25.)

4. Both leaders send swimmers several hundred yards up and down the stream bank to swim the stream undetected and to locate and stalk the guard.

5. The corporal selects and applies the formula "$W = \frac{50d}{L}$" from the following, and finds the bridge to be safe for 12½ tons:

Bridge Capacity Based On Stringers

Steel stringers (Approximate formulas developed at The Cavalry School):

$W = \frac{25d}{L}$ (Beams under 10")

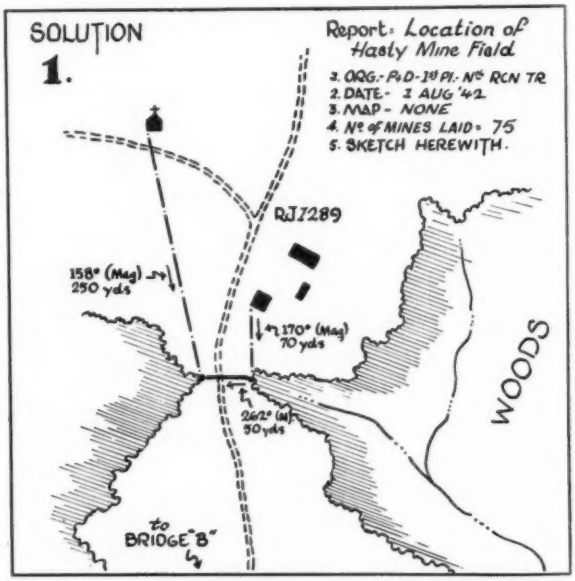
$W = \frac{50d}{L}$ (Beams 10" or over and under 14")

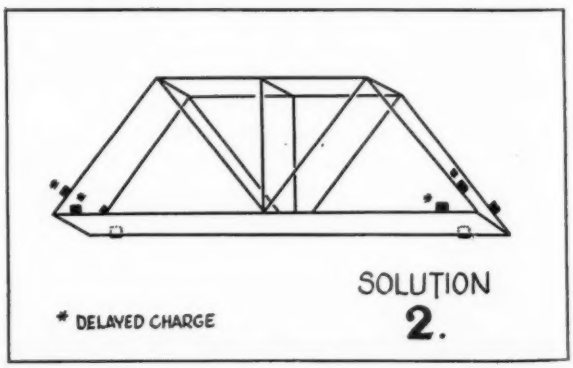
$W = \frac{75d}{L}$ (Beams 14" and over)

W = the maximum permissible load on the bridge in thousands of pounds. (Safety factor = 1 +)

d = the over-all depth of the beam in inches.

L = the stringer span in feet.





(NOTE: Even though application of formulas indicates a bridge to be unsafe, oftentimes in combat, the only excuse for failure to cross a bridge of doubtful capacity is the collapse of the structure and the loss of a vehicle.)

6. The corporal orders the pioneer and demolition squad to lay a hasty antitank mine field at the defile to protect the preparation of the bridge for demolition.

7. The mines are laid in four rows with a distance of eighteen feet between rows; the interval between individual mines in the first two rows in the direction of the enemy is twelve feet; the interval between individual mines in the last two rows is six feet.

8. The corporal sends a sketch in triplicate of the completed mine field to the Commanding Officer, Nth Infantry, and mounts a guard over the field. See sketch, Solution 1.

(NOTE: Normally, the report of the location of a mine field should be submitted to the next higher unit; however, in this case the corporal's platoon has displaced forward. If the corporal is unable to report the installation of the mine field to his platoon, he should request the Infantry Commander to inform the corporal's platoon of the mine field installation.)

9. The corporal disposes the personnel and weapons of the vehicle to cover the mine field with fire. If a gap is to be left in the field to permit the passage of friendly vehicles, the vehicle with driver may be sent out as a mobile outpost to give warning of the approach of hostile vehicles. Closing such a gap is simplified if the mines to close the gaps in each row are properly spaced on a rope or board which may be rapidly pulled across the gap.

10. Sketch, Solution 2.

11. The corporal selects the formula "N = ¾ A" from the following, and finds that it will require forty-eight half-pound blocks of TNT to prepare the bridge for demolition:

EXPLOSIVE FORMULAS

$N = \frac{d^2}{20}$ (External charge, timber)

$N = \frac{d^2}{125}$ (Internal charge, timber)

$N = \frac{3A}{4}$ (Steel)

$N = 8\,H^2T$ (Reinforced concrete bridges; use at least 10 inches of tamping; place charge over center of beam.)

N = the number of ½-pound blocks of TNT.
d = the least dimension of a timber in inches.
A = the cross-sectional area of steel in square inches.
H = the height of a concrete beam in feet.
T = the thickness of a concrete beam in feet.

Personality Is Key to Accidents

WAR workers liable to make the kind of mistakes that sink ships, lose battles, or explode munition plants can be weeded out by personality tests, Dr. Flanders Dunbar, of New York told members of the American Psychopathological Association recently.

The "accident habit" seems to be a personality trait like stammering or alcohol addiction, associated with well-defined emotional factors.

People who are always falling down or getting into automobile accidents are characterized by a love of adventure and resentment of authority. Dr. Dunbar suggested that they would do well in non-routine jobs utilizing individual initiative, such as Commando units, and badly in a war job that required implicit obedience.

These characteristics of the "accident personality" were revealed in a study of 1,500 hospital patients suffering from heart diseases, diabetes, and fractures. Each of these groups showed certain well-defined personality traits that distinguished them from the others. It was found that the majority of fracture patients had had three or more serious accidents, and these patients were then studied as the "accident type."

Hope of using personality tests to prevent accidents on wartime jobs was seen in the successful results obtained by the inkblot test in diagnosing the "accident personality." In this test the individual looks at a carefully selected series of black and colored inkblots and tells what sort of picture or object the rather fantastic shape makes him think of. His answers give psychologists clues to his past experience, interests and personality.—*Science Service.*

New Remount Head

THE office of the Quartermaster General in Washington has announced that Colonel Edward M. Daniels has succeeded Colonel Edwin N. Hardy as chief of the Remount Division.

Colonel Hardy has left the Remount service to fill the office of post commander at Fort Huachuca, Arizona. In 1939 he succeeded Colonel Thomas J. Johnson as chief of the Remount Division, and since that time he has worked assiduously for the betterment of the breed, especially for the Army. That his diligence has borne fruit is evident in the vast improvement of present-day Army remounts over those used in the World War.

A firm believer in the importance of horses, Colonel Hardy declares that as the war progresses, there will be an increasingly greater use of horses for civilian as well as for military purposes and that they will be of inestimable value in the period of adjustment following the war. He is convinced that the scope of the Remount work will increase rather than diminish, especially if the United States will coöperate with our Latin-American neighbors in helping them to improve the quality of their horses.

Colonel Daniels, the new Chief of the Remount Division, was born in Waterbury, Connecticut, November 29, 1894, and was commissioned second lieutenant in the Field Artillery on August 17, 1917. On May 20, 1918, he went overseas with the 79th Field Artillery, with which he served abroad from August, 1918, to June, 1919. Just prior to this organization's return to the United States, Colonel Daniels was transferred to the Military Police Corps. This duty required his services abroad for eleven additional months, thus delaying his return to the United States until May, 1920.

Upon his arrival in the States, he was immediately assigned to the 5th Cavalry with station at Marfa, Texas, and served on the Mexican border until 1925. During this tour of duty, he received two promotions in rank, becoming a captain in July, 1920. During the years 1925 to 1927, Colonel Daniels attended the Cavalry School Troop Officers' course and the Special Advanced Equitation course at Fort Riley, Kansas. In these courses he showed great aptitude, and upon graduation became a member of the Army Horse Show Team during the year 1928.

His next tour of duty was with the 3d Cavalry at Fort Myer, Virginia. Eight months later the colonel was detailed to duty with the Quartermaster Corps at the Front Royal Quartermaster Depot (Remount), Front Royal, Virginia. Colonel Daniels' duty with the Remount Service, therefore, began in April, 1929, and from that date to this he has served uninterruptedly with this Division of the Quartermaster Corps.

In the fall of 1930, Colonel Daniels was transferred to Colorado Springs, Colorado, where he became Officer in Charge of Southwestern Remount Area. During the ensuing five years in that Area he purchased many horses which later became famous as show horses with the Army Horse Show Team and as polo ponies played in high-goal Army polo. Some of these ponies were developed by the Colonel himself while playing with the United States Remount Polo Team of Denver, Colorado. Handicapped at four goals, the Colonel played at either No. 1 or No. 2 position, and with this team enjoyed four years of winning polo.

In July, 1935, he was ordered to leave Colorado Springs to become commanding officer of Reno Quartermaster Depot (Remount) Fort Reno, Oklahoma. Here he remained for six years and during this period, that depot grew into what it is today. A new detachment building, headquarters building, numerous stables and veterinary facilities were constructed. The entire post was rehabilitated and is now capable of handling from 10,000 to 12,000 animals. Also, during this period the Colonel was promoted to the rank of Lieutenant Colonel. Then in August, 1941 he was ordered to Robinson Quartermaster Depot (Remount), Fort Robinson, Nebraska as commanding officer. His tour of duty was very short because in March, 1942 he was ordered to Washington to become Chief of Remount to succeed Colonel Hardy.

Protect Army Horses

U. S. Army horses are being protected against possibilities of a fresh outbreak of sleeping sickness next season. The army has inaugurated a systematic program of immunizing horses against the disease which has killed so many farm horses in recent years. The work is being done by army veterinarians, using two doses of chick embryo vaccine.

Induction of An Army Horse

PROOF that "Private Dobbin" still plays an important part in warfare is seen by the successful use of the horse by the Germans in the Polish campaign and by the Russians in the Ukraine. Dobbin can go through rain or snow, across all kinds of terrain, inaccessible even to a Jeep. He is very much a part of Army life.

Young Dobbin, prior to his induction into the Army, takes just as strenuous a physical examination as does Johnnie Q. Public upon request of his local draft board. Only when Dobbin is rejected by the Army, he doesn't get a 1-B Classification. He stays in civil life.

He must meet certain requirements or else he is rejected. The officer in charge of the respective Remount Areas announces designated spots where horses will be bought and cowboys and ranchers bring young Dobbin in by truck, trailer or on horseback to the purchasing board, where he is given a thorough going over. Hoofs, muscles, teeth, height, weight, and gait are all carefully studied.

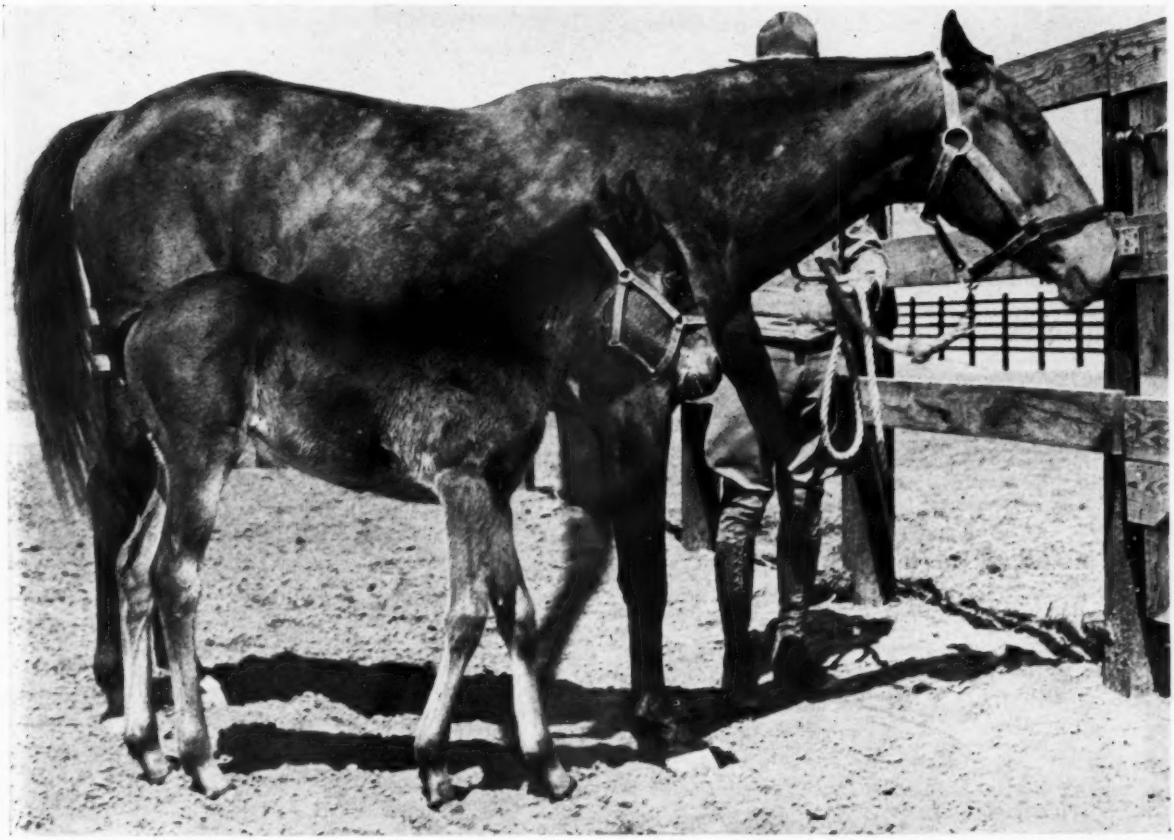
Markings are also important. Grays, pintos, appaloosas and light-colored horses are rejected, since they are too readily visible to the enemy. Brown and black colored horses are generally chosen, with a minimum of white markings.

Finally, Dobbin is saddled and put through a walking, trotting and galloping test. (Any unrideable horse is crossed off the list.) All information concerning him is recorded by a purchasing officer in a notebook for future reference.

If the purchasing officer decides that he should be "inducted" for the Army, he offers the owner a certain price, which the owner accepts or rejects. The average price paid is $165.

After "induction," a temporary purchasing brand is painted on his back in Silver Nitrate, such as X-37, which is put in the books for later identification purposes. He is then sent to a designated loading point, and arrangements are made by the Remount officers to ship him by rail to one of the three Quartermaster Remount Depots—Front Royal, Virginia; Fort Robinson, Nebraska; and Fort Reno, Oklahoma—where his Army life begins. There he is conditioned prior to active service in the Army.

Upon arrival at the Remount Depot, Private Dob-



Sometimes the Government gets two for one. This little "Ray of Sunshine" was foaled at The Cavalry Replacement Training Center six months after it was received from the Remount Depot.

bin is put in a veterinary area, an isolated pen, where he remains for 48 hours, being fed nothing but hay and water. This is his first adjustment to Army life.

He is then taken and put through a chute, a narrow passageway just wide enough to pass one horse. Soon he is given his Preston brand number, consisting of three numerals and one alphabetical letter, such as T123.

Dobbin is kept in the pen for two weeks. On the third day he is mallained, that is, inoculated for encephalomyelitis (sleeping sickness) and tetanus (diptheria). He is inoculated again seven days later. A veterinary officer watches the horse with great care to see that he does not develop a cold or running nose.

The two weeks' period over, he is turned into a pasture. At the same time his diet is increased to include oats, corn and bran. There he remains for two to four weeks. This is the most critical time in the animal's life, for during this period he is apt to contract all kinds of serious diseases, such as strangles, influenza and pneumonia.

Quartermaster Remount officers, veterinary officers and enlisted men check the horse at least six times a day. If there is the slightest thing wrong with him, he is treated in a field chute. If he becomes quite sick, he is promptly taken to the veterinary hospital.

After spending some time in the pasture, the horse is brought into the dipping vat area where he is dipped in a solution of sulphur and lime to counteract any ringworm. If he has a bad case, he is dipped again within four days.

Soon thereafter Private Dobbin is put through another chute. In fact he is given a treatment not equalled by milady at the beauty parlor. With three men attending him, he is clipped, his mane is roached down, his feet are trimmed, and any small injuries are observed and treated. After getting "the works," he is returned to the pasture where he remains for 10 to 14 days.

His period of rest over, Private Dobbin is led from the pasture into the processing stable where he receives his first training. A bridle and saddle are put on him, and for the first time he is ridden. All of his characteristics are recorded, both good and bad, such as: *gentle, tractable* or *wild, kicks, nervous*. If he is gentle, he is marked as suitable for issue. If he is wild, he is ridden until broken before he is issued.

When an order comes out requesting a certain number of horses, the Remount Division supplies horses from Remount Depots to the designated unit. Many horses are sent to the 1st Cavalry Division at Fort Bliss, Texas, or to the Cavalry Replacement Center at Fort Riley, Kansas. A complete history of each horse is mailed to the commanding officer.

Army Horse Breeding Program Progresses

THE Army Horse Breeding Plan is the very core of the Remount Division of the Quartermaster Corps. A suitable number of military horses must be supplied to the Army each year, and this necessitates carefully planned breeding. Throughout the various Remount areas, mares are now being bred to high-class stallions. From a recent report it was estimated that a total of 18,759 mares were bred during 1941, with 724 stallions at stud, the War Department announced today.

The most predominate Army horse bred during 1941 was the Thoroughbred, numbering some 17,983 mares with 688 stallions at stud. The drop to the next most popular breed in the Army, the Arabian, was great, with only 375 mares bred and 16 stallions at stud. After that, in order of the greater number, came the Morgan, Saddlebred, Anglo-Arabian, with the Cleveland Bay winding up the list with eight mares bred and one stallion at stud. No East Prussian horses were bred last year.

Taken by area or depot, the following horses were bred during 1941: Eastern Area—950 mares with 46 stallions at stud; North Central Area—3,872 mares with 124 stallions at stud; East Central Area—938 mares with 51 stallions at stud; South Central Area—4,205 mares with 160 stallions at stud; Northwestern Area—3,950 mares with 165 stallions at stud; Southwestern Area—1,888 mares with 89 stallions at stud; Western Area—2,728 mares with 95 stallions at stud; Front Royal Quartermaster Depot, Virginia—109 mares with 7 stallions at stud; Reno Quartermaster Depot, Oklahoma—62 mares with 3 stallions at stud; and Robinson Quartermaster Depot, Nebraska—57 mares with 4 stallions at stud. There were approximately 25.9 mares to one stallion.

In comparison with the 1940 breeding figures, 808 more mares were bred during 1941. Foals reported born during 1941 numbered, 11,409. This is a low figure since many births were not reported. The greatest number, 11,028, were Thoroughbreds. Foals born during 1941, according to area or depot, were as follows:

Eastern Area—614 foals; East Central Area—318 foals; North Central Area—2,326; South Central Area—2,829 foals; Northwestern Area—2,089 foals; Southwestern Area—1,196 foals; Western Area— 1,880 foals; Front Royal Quartermaster Depot, Virginia—74 foals; Reno Quartermaster Depot, Oklahoma—41 foals; and Robinson Quartermaster Depot, Nebraska—42 foals. With 1942 well on its way, the births of many foals are now being reported.

"Bandy", An Equine Inductee at C.R.T.C.

FOLLOWING his preliminary training at the Induction Center (Remount Depot), Bandy is sent to the Cavalry Replacement Training Center at Fort Riley, Kansas, for further training in his military career.

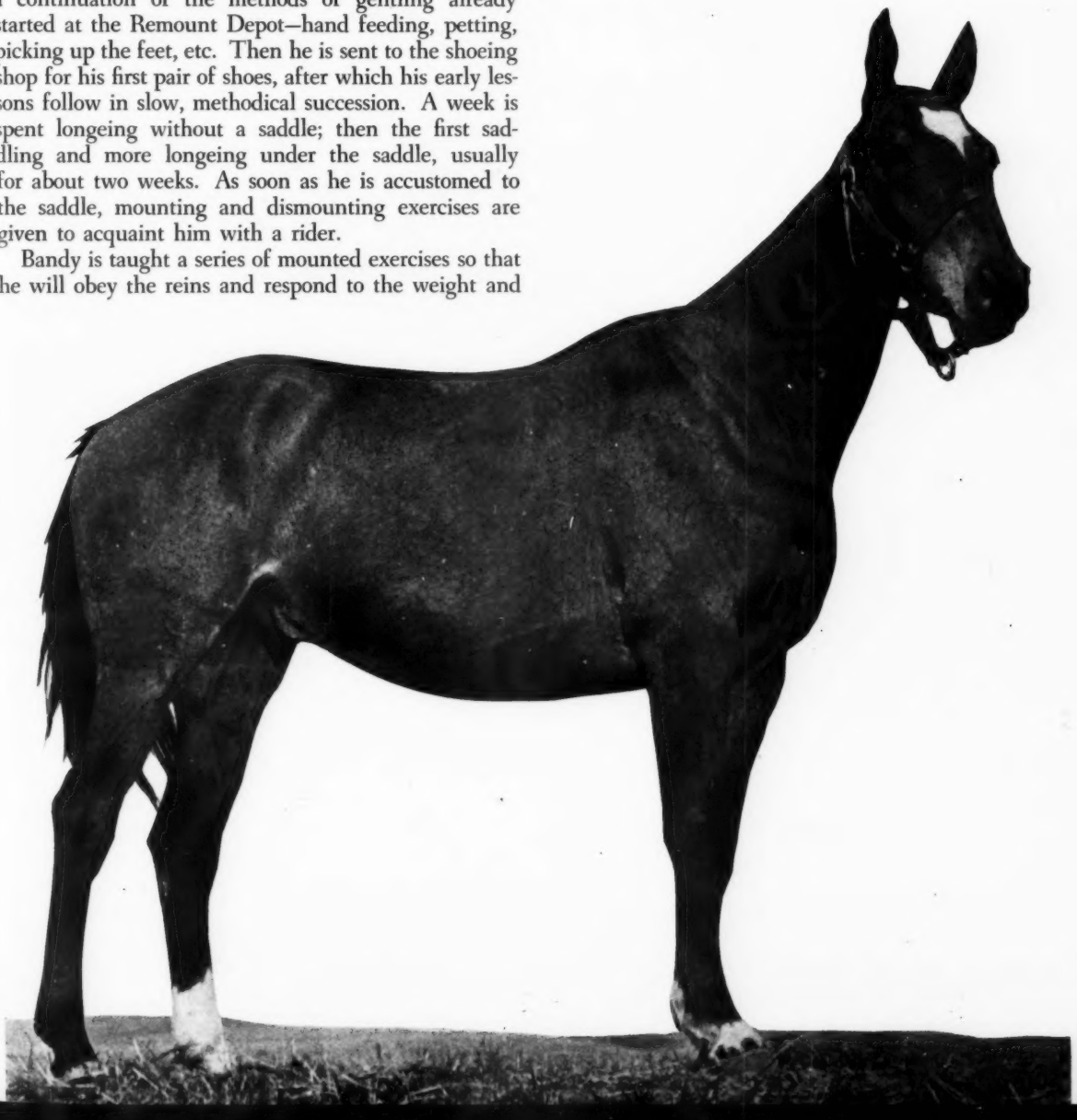
After his arrival at the Replacement Center and a short period of quarantine, Bandy, like his human contemporary, gets his series of "shots." He is inoculated at the Veterinary Hospital against sleeping sickness, tetanus, and glanders; then he must go into the dipping chute where he is immersed in a solution of lime and sulphur to rid him of ring worm, lice, and other parasites. Meanwhile, he is assigned to a clean, roomy, well-ventilated and lighted stall in the "Horse Barracks."

Now comes the important step in Bandy's army career—preliminary training. This has been planned and discussed by the selected men who will participate in training him and the other remounts. First, there is a continuation of the methods of gentling already started at the Remount Depot—hand feeding, petting, picking up the feet, etc. Then he is sent to the shoeing shop for his first pair of shoes, after which his early lessons follow in slow, methodical succession. A week is spent longeing without a saddle; then the first saddling and more longeing under the saddle, usually for about two weeks. As soon as he is accustomed to the saddle, mounting and dismounting exercises are given to acquaint him with a rider.

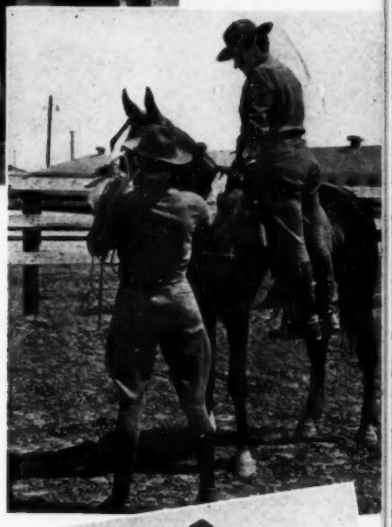
Bandy is taught a series of mounted exercises so that he will obey the reins and respond to the weight and legs of the rider. These exercises include work on the leading and bearing reins, decrease of gait (often as many as a hundred times in each training period), shoulder in (to teach him to relax and become supple and most valuable in horse gymnastics).

Now Bandy is ready for his advanced training. He learns to jump over low obstacles, gradually increased in height; to move rapidly but at controlled gaits over rough terrain; to gallop calmly during mounted pistol firing; to negotiate steep slides; and to take his place with other horses at troop drill.

Finally, after weeks of hard and tedious training days he is ready to leave the ranks of the "trainee" and to take his place beside the "old trooper," ready and willing without growl or grumble, to sacrifice his life if need be in the defense of his country.



"Bandy" as a "Trainee"—



and finally, as a trained "Trooper."

Thoughts for Newly-Appointed Officers

*By Colonel Troup Miller (Cavalry), I.G.D.**

THERE are so many new officers, especially junior officers, entering the Army of the United States during the existing emergency, that it seems an appropriate time to point out to them some of the matters in their daily lives with which they are going to be vitally concerned.

They will find much valuable material to study in the many manuals furnished them, such as, "Military Courtesy and Discipline, F.M. 21-50," but the discussion which follows is intended to treat certain subjects in a somewhat different style from that adopted in the printed text.

One of the first and most lasting impressions made by a new officer upon his superiors, as well as his contemporaries, is reflected in his personal appearance. If he is well groomed and his uniform and equipment are spotless and worn strictly in accordance with regulations, he need not say or do anything to make that *first* impression. His appearance will brand him at once as a careful, thoughtful officer, and he will have laid one of the foundation stones of his military career.

Military Character

One of the first things a young officer should do is to procure a blank efficiency report form and examine the various items upon which he is going to be rated by his superiors. The newly appointed officer should not be kept in ignorance of the various subjects which are going to form the very basis of his military character. These subjects have been carefully selected by the War Department, and the ratings under them constitute the standard by which the efficiency of an officer may be judged.

Some officers belittle the value of the efficiency report, claiming that its use does not truly reflect the officer's military character, as the reporting officer cannot be wholly impartial in preparing the report; that he is either prejudiced for or against the individual reported upon, and therefore cannot truly represent the qualities possessed by this officer. But it has been the experience of this writer that many reporting officers make it a rule to perform this duty with a great deal of care, and as a result submit reports which give a fairly true picture of the military character of the officer reported upon.

It should be remembered that the real value of an efficiency report upon an individual officer lies in its being extended over a number of years and being prepared and reviewed by a number of different officers. The composite result is very apt to be a fairly accurate representation of the officer's military character.

So, the "shavetail" may find his time well spent in studying the efficiency report. He should remember from the very first that someone is observing him all the time, that he is making an impression on someone every day of his life. That impression will usually either be favorable or unfavorable; seldom will it be indifferent or colorless. An officer's general demeanor, his speech, his acts, his habits, his associates, his personal appearance, are all factors which contribute to the impression which he is making. It is considered particularly important, therefore, that a young officer should have these matters brought to his attention early in his military life in order that he may govern his conduct accordingly.

A young officer in the early months of his service should be an attentive *listener*. He will hear much of benefit to himself, and will soon learn to discriminate and reject that which has no merit. He should be careful not to talk too much, and by all means refrain from telling his commanding officer how to run his organization, however much he may think he knows about it. He should remember that much may be learned by association with other officers and constant observation of their methods. His quiet, dignified demeanor may serve not only in helping to develop his own military character, but may prove a profitable example to some other officer.

Drinking by officers has always been a serious subject in our Army, and the question has been handled by commanding officers in various ways. The main thing to bear in mind is that officers are expected to conduct themselves like any other group of gentlemen. Drunkenness among them will not be tolerated. By practicing moderation in their drinking habits, officers will not only safeguard their health, but will add prestige to their military character. Drinking to excess has been the downfall of many an officer who otherwise might have proved a valuable asset to the Government. The practice of abstemiousness will be of great assistance to an officer in controlling similar habits among the enlisted men entrusted to his care.

An officer, particularly a troop company officer, should learn to budget his time. His troop duties will require much of his attention, but the spare time at his disposal should be utilized to the best advantage. Much studying will be required of him, but he should keep ever present in his mind the thought that his first duty to himself is to keep physically fit. To this end, he should participate in some daily profitable physical exercise, provided his troop duties have not already supplied it for him. Appropriate recreation in this connection is also an important consideration. The goal of military training is fitness in combat, and this fitness means first, physical fitness.

Leadership

There is nothing in the military life of the newly appointed officer more important than his relations with the enlisted men of his command. Much can be said on

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*Inspector General, Eastern Theater of Operations.

this subject, as it covers all the attributes of leadership, but only the salient features will be touched upon in this article, in the hope that the suggestions made may be of use to the inexperienced officer in his early service.

It is important that each officer early in his military career should devote himself enthusiastically to the problems of leadership. To be a good leader of men an officer must possess those qualities which will inspire their respect, their loyalty and their obedience. He should be on guard constantly to insure that he does not commit any act or say anything which will lower their respect for him, for as soon as the men lose respect for their commander, their loyalty and obedience suffer a set-back and his usefulness in his organization is seriously impaired.

Upon joining his organization, the new officer will find a group of keen, enthusiastic, loyal Americans, a few well trained, some partly trained, and some untrained, all of whom will be looking to him for instruction and guidance. They are the fighting men of the nation and the task of the officer is to train and educate them in their military duties, make good soldiers of them, and afterwards to lead them in battle.

These men are all willing, most of them young, and all of them eager to learn, and they will immediately look upon their new officer as their leader, instructor and general counselor. They are perfectly ready and keenly desirous to follow him so long as he can convince them that he possesses those qualities which mark the successful military leader. After their respect for him has been firmly established, he may have little doubt about commanding their loyalty and obedience. These two essentials to successful leadership will naturally follow when the officer by his actions and his treatment of his men has convinced them of his ability and his interest in them, and has aroused their admiration for him.

The officer should not forget that he is under the constant scrutiny of his men. They are close observers, and he will find them quick to notice such things as his carriage, his dress, his manner of speech, and whether or not he has a real interest in them. Some of them will be inclined to imitate him. He therefore has the tremendous responsibility of being an example to his men in all of those qualities that go to make the good soldier.

Soldiers become as much attached to their officers when they have proven their worth, and are just as proud of their accomplishments, as the officers are of the fine group of men which they command. A good officer is an ever-present inspiration to his men and a constant incentive for them to become better soldiers.

Discipline is the foundation upon which an army is built. It should be so inculcated in a military unit until a point is reached where it is embodied in each individual member of that unit as a fixed mode of living. An officer, therefore, who in his own person embodies the desired type of discipline, will be able to attain his goal in training his men by making of himself a living example of conduct for his men. His authority will be assured even in the most difficult situations if his sincerity is perfectly obvious and his men willingly acknowledge him as their leader.

The commander therefore must cultivate a high degree of self-discipline, both on and off duty, and should strive to attain a certain steady and calm self-assurance of manner. "Self-confidence results from exact knowledge and the ability to impart that knowledge, and from the feeling of superiority over others that naturally follows. It is the result of knowing more than your men." The ambitious, studious officer who conscientiously applies himself to his various tasks will soon become so well informed that he will find that he is developing a strong sense of assurance and confidence in himself. He finds himself becoming familiar with the sound of his own voice, and is giving orders and discharging his many duties without embarrassment and without hesitancy. He is gaining that poise and self-reliance which is such an asset in all of his military contacts.

Among the officer's first contacts with the enlisted men comes the salute, the salutation between military men in which the junior renders the first greeting. An officer should return the salute of an enlisted man just as promptly and carefully as it is required to be rendered by the soldier. The obligation on the part of the officer to return the soldier's salute *properly* is just as binding as it is upon the soldier to render it. In executing the salute the soldier is required to turn his head and observe the officer saluted. It is therefore incumbent upon the officer to look at the soldier in acknowledging his salute. The soldier is entitled to the same recognition which he has shown the officer.

Indifference or carelessness on the part of an officer in returning the salutes of soldiers will soon be reflected in indifferent saluting on their part. It is an old saying in the Army that the discipline of an organization can be judged by the manner in which the men salute. The saluting of the men, then, may be accepted as a true reflection of the military character of their commander. The officer who has established himself among his men as a real commander will soon find that his men will salute him with a great deal of pride.

Much can be learned by newly appointed officers from the older experienced noncommissioned officers. The noncommissioned officers, especially those who make a profession of soldiering, are the very backbone of our Army. The officers of an organization come and go, and the short term enlisted men in time of peace put in a "hitch" and then move on, but the older noncommissioned officers remain in their grades for one enlistment after another and they are the ones to whom we are indebted for maintaining the *esprit* and traditions of our regiments. They are the recruit instructors and they are largely responsible for the training and discipline of an organization.

The noncommissioned officers should be made to realize that they are the commander's right-hand men and that they hold a position of trust. They must be made to feel responsible for the organization property, for the good name of the troop or company, and for the welfare of the men entrusted to their leadership. This responsibility must be accepted by them not as a burden, but as an enviable distinction.

A good noncommissioned officer is entitled to and deserves a great deal of respect and consideration from his officers. He should be impressed with the fact that he has been especially selected from his fellow soldiers to carry greater responsibilities and that a high degree of confidence and trust has been placed in him. He should be carefully instructed in his duties and given firm support in the execution of them.

The old first sergeants of our Army who know their jobs so well fully appreciate the difficulties confronting the newly appointed junior officers. They will be found to possess a very sympathetic understanding of the officers' problems, and it would be well to cultivate them. They are among the Troop Commanders' first helpers and they exert a tremendous influence among the other noncommissioned officers of the organization. Their position is one of great responsibility and they should enjoy a greater measure of the confidence and consideration of the Troop Commander.

Again and again every Commanding Officer should stop to remind himself that his noncommissioned officers more than anyone else in the Troop will regard him as an example to imitate, and that his bad traits will be copied along with the good. If he is rigid and precise in his bearing, they will try to equal him in that. If he relaxes his self-control, a similar reaction will soon become evident in the noncommissioned ranks. "An officer can be a power for good or a power for evil."

Under no circumstances should an officer indulge in profane or vulgar language in the presence of enlisted men. The use of vulgar expressions is unworthy of an officer, and such expressions insult and dishonor the men to whom they are addressed. Using language of that sort can only serve to lessen the men's respect for their officer.

Some officers seem to think that they are making a more forceful impression upon their men by interjecting profanity in the instruction being given by them. An officer who cannot express himself without the assistance of profanity is constantly giving a conspicuous demonstration of a marked deficiency in his character. The chances are that for every man whom he has favorably impressed, there will be two or more who will have lowered him in their estimation. He is therefore seriously damaging one of the essential qualities of leadership previously mentioned, that is, the one which commands their respect.

All officers should guard meticulously against cursing an enlisted man. It is not only a cowardly thing to do, for the man can make no reply, but it is highly reprehensible from every point of view. Furthermore, it is an outstanding illustration of lack of self-control, a characteristic which every officer must possess. Also familiarity should be avoided, for your men will respect you more if you will always maintain a dignified, though friendly, bearing towards them. No opportunity should be neglected for establishing bonds of friendly confidence between the officers and their men.

Likewise, the giving of instructions to enlisted men in a loud, boisterous manner is not conducive to good discipline in a troop. A loud-mouthed, roaring Captain will soon have a noisy and unrestrained organization, and wonder why he is making so little progress with its training. Firmness is a military requisite, but harshness has no place in military relations.

Never, if it can possibly be avoided, should an enlisted man be severely admonished or corrected in the presence of other men. This is especially true of noncommissioned officers. Such practice, if continued, is sure to undermine the very foundation upon which your organization is built.

In this connection we should not forget that there are times when an enthusiastic word of praise is very effective. It is a human characteristic, common to us all, to feel elated over favorable comment by our superiors upon work that we have done and such an encouraging word invariably inspires better efforts on our part.

It is wise to make a rule early in one's service not to loan money to enlisted men except in extreme emergency, for several reasons. There is usually a welfare fund in most stations which has been created for the purpose of meeting emergencies which may arise among enlisted men. This fund is usually administered by the Chaplain under supervision of the Commanding Officer. It should therefore not be necessary for an officer to loan money to enlisted men. In case such money is loaned, the officer may find himself later in the embarrassing position of trying to collect the money from the soldier or suffering a financial loss. As soon as the men learn that the new officer is not a money lender, they will soon stop approaching him on the subject.

Practically all officers are instructors throughout their military careers. In order to instruct properly the instructor must thoroughly master his subject. American soldiers as a class, particularly those comprising the War Army, are very intelligent individuals. It does not take them long to learn whether or not their officers understand their business. Men will not have confidence in an officer unless he knows his business and he must know it from the ground up. The new officer may be able to fool some of them for a short time, but he will never be able to fool all of them all the time. "There is no substitute for accurate knowledge."

If the officer is giving instruction in the tactics and technique of a certain weapon, he *must know in detail* everything that is to be known about that weapon and be able to handle it himself. Nothing is so impressive in giving instruction as to be able to demonstrate success-

fully one's own ability to do the thing which he is telling others how to do. It is not difficult to explain to a recruit how he may hit the bull's eye on the target range, but it would be far more effective to take the recruit's rifle, in addition to explaining the process to him, and center a shot in the bull's eye yourself.

Finally, every officer should work and live in such manner that his military leadership will be freely acknowledged by his men because it furnishes for them a lofty example of cheerful responsibility, superior ability and untiring devotion to duty.

Beware of loan sharks! There are many loan companies throughout the country who are quick to obtain the names of newly appointed officers and make loan proposals to them. Attractive terms are offered, requiring nothing but the signature of the individual, and making it appear that the money is to be returned at the convenience of the borrower. Many young officers have fallen easy prey to such propositions, and have later wished that someone had warned them against such agencies.

Funds and Property

There is no subject confronting a newly appointed officer which has associated with it more potential grief than the care and safeguarding of non-appropriated funds and public property. Many junior officers are wholly inexperienced in the handling of funds and property.

It should be remembered that unit and similar non-appropriated funds are *official* funds and require the same careful supervision as do appropriated public funds. Officer custodians of such funds, particularly newly assigned officers who are handling these funds for the first time, are enjoined to study AR 210-50, which clearly set forth the provisions under which these funds are administered. These regulations charge the duly appointed custodian with receiving, safeguarding, disbursing and accounting for these funds. *This means that the custodian must perform these duties personally.* He cannot delegate this responsibility to any other person. An officer custodian of such funds may be assisted by an enlisted man in keeping the records of these funds, but under no circumstances should he attempt to place any responsibility upon the enlisted man for safeguarding the funds. He should also scrupulously resist the temptation to borrow from such funds. Such action can be regarded in no other light than a misappropriation of official funds, and may lead to serious consequences for the custodian.

To insure these funds against loss, great care must be exercised in handling them. Upon receipt, they should be placed as early as practicable in a bank, which, if possible, is protected under the Banking Act. Under no circumstances should they be permitted to remain unduly long upon the person of the custodian, in a desk drawer, or in any other unprotected place.

If the custodian is so situated that it is not practicable for him to deposit the funds in a bank within a reasonable time after the receipt of same, he should take the necessary steps to procure an office safe or apply to his commanding officer for a suitable place to deposit the funds. If an office safe is provided, the custodian *alone* should know its combination and this combination should be carefully guarded by him. Large amounts of money taken to and from a bank should be properly guarded during transit.

The custodian should constantly bear in mind that any losses in these funds due to his negligence must be borne by him. He cannot expect a Board of Officers to relieve him of responsibility for such loss unless he has taken every reasonable precaution to safeguard the funds.

Public property in the possession of an officer requires the same careful supervision as does the handling of funds. Much of it is of such value and character as to be easily removable by unauthorized persons.

Officers responsible for such property, particularly officers inexperienced in its care, are enjoined to study AR 35-6520 which prescribe the provisions under which the property will be handled. These regulations clearly indicate the duties of the accountable and responsible officers in receiving, storing, issuing, safeguarding, and accounting for the public property in their care. Upon receipt of public property by an officer it should be carefully verified by him *personally*. He is the responsible officer, and he cannot entrust this duty to any other person.

To protect public property against loss, great care must be exercised in handling it. Upon receipt, it should be stored as soon as possible in a properly safeguarded storeroom or storehouse. The ideal storeroom is one with iron bars or heavy iron grating or screening on doors and windows and suitable locks on all doors and windows. The keys should be carefully safeguarded by the responsible officer.

If the responsible officer is forced to store public property in a tent, the tent should be floored and sealed throughout with suitable material and equipped with a substantial door with a suitable lock. A further precaution is to have a trustworthy enlisted man sleep in the tent.

All small arms should be kept securely locked in arm racks and arm chests and the latter made further secure by bolting them to the floor. Under no circumstances should small arms or ball ammunition be permitted to remain loose in the storeroom or storage tent.

The responsible officer should satisfy himself that proper guard is furnished around the storehouse or tents in which the public property is stored.

He should be ever conscious of the fact that any shortages or loss of public property due to his negligence must be paid for by him. Should such loss occur he can expect favorable consideration by a Board of Officers only when he has taken every reasonable precaution to safeguard the public property.

ROTC Training at Norwich University

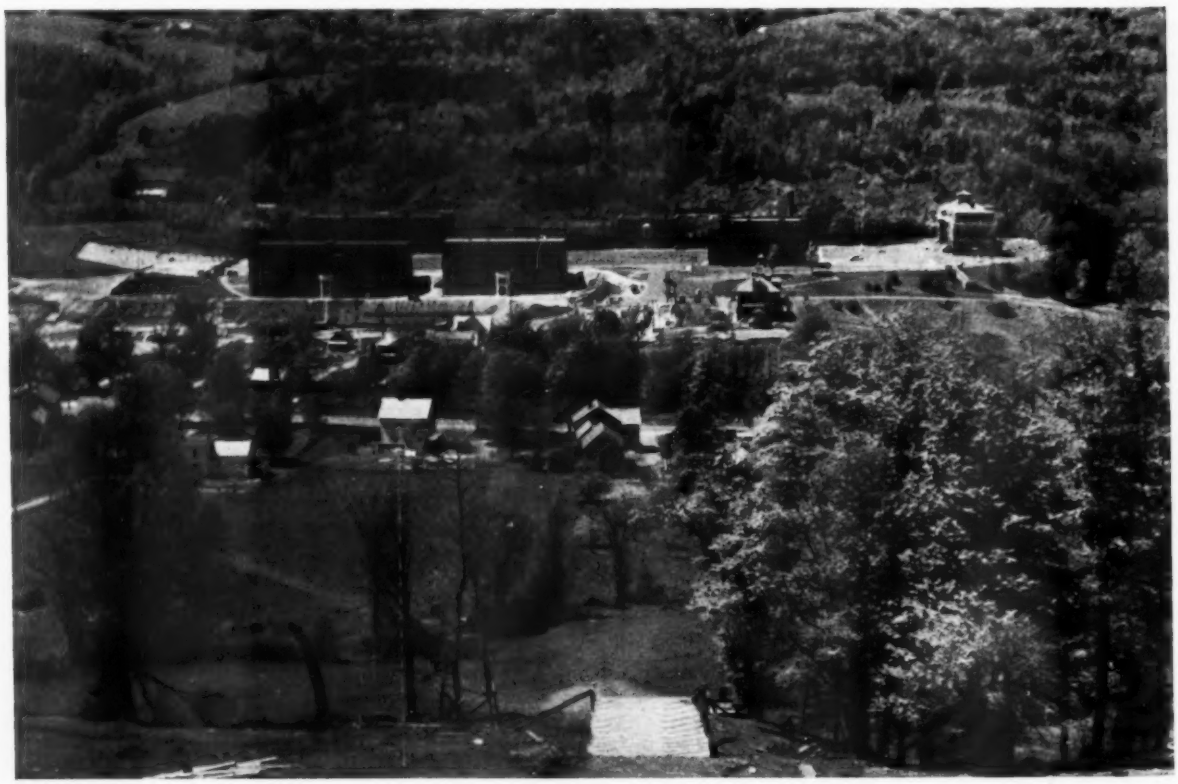
*By Colonel George S. Andrew, Cavalry**

THE Army is now drawing substantial dividends from the ROTC program established by the National Defense Act some twenty years ago. Since the enactment of legislation expanding the Armed Forces, and especially since December 7th, military training in colleges and universities which have ROTC units, has taken on an added importance.

Norwich University in the green hills of Vermont is an essentially military college. Cadets wear a distinctive Norwich uniform and are subject to military discipline at all times. The ROTC has always been an outstanding element in the institution—so much so that it is closely entwined with the organization and daily life of cadets. The student body of about 500 cadets is organized into a Corps of Cadets with a Headquarters Troop (which includes the Band) and five line troops. The Corps is commanded by a Cadet Major with his commissioned and noncommissioned staff. Each troop is commanded by a Cadet Captain with a full quota of Cadet Lieutenants and noncommissioned officers. Troops are composed of members of all classes and are quartered by organization in barracks. Each troop commander is held responsible for the daily inspection, discipline, and administration of his troop and barracks. There are no tactical officers. The cadet troop commander performs the duty of a "Tac." This placing of responsibility on the cadets themselves is a potent factor in developing initiative, self confidence and leadership in these embryo second lieutenants.

The ROTC up to the present time has consisted of one unit, Cavalry. Recently the organization of a small Signal Corps Unit has been authorized, effective at the beginning of the coming school year. In the past the ROTC quota allotted to this institution has been sufficient to include all Juniors and Seniors who are considered suitable and who are physically qualified for the Advance Course. Next year, due to the increased size of the Corps, enrollment from the new Junior Class in the Advance Course will be more selective and competitive. However, all cadets are required to take the ROTC instruction even though they

*Until recently, P.M.S. & T., Norwich University.



Barracks and Headquarters Building as seen from the ski jump

Combat problems

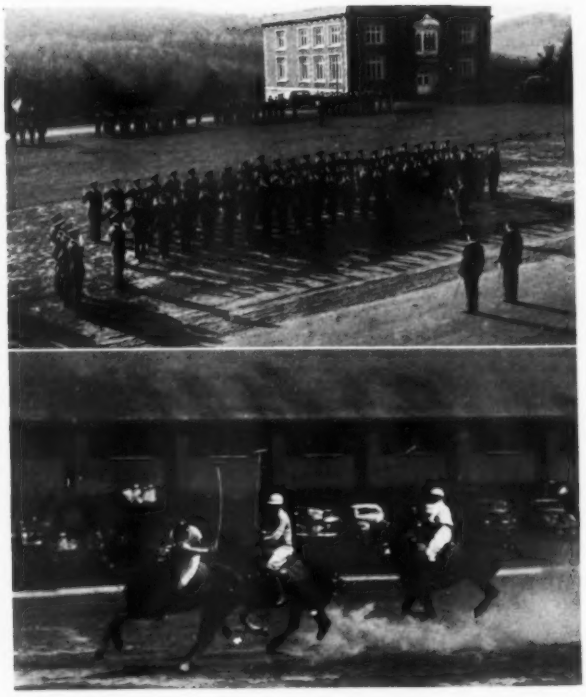
may not be duly enrolled as members of the ROTC.

In the course of their daily routine cadets must necessarily absorb considerable military instruction in interior administration, guard, military courtesy and customs of the service, and discipline. The ROTC instruction proper averages about six to seven hours per week with as much as ten and one-half hours per week during certain seasons of the year. Due to climatic conditions the program of instruction is divided into three periods, fall, winter and spring. The fall and spring periods are devoted to practical outdoor work while theoretical and some practical instruction is carried on indoors during the winter period.

The fall and spring instruction is conducted by troop by the cadet officers and noncommissioned officers under the supervision of the regularly assigned instructors. The drill period consists of two hours per day four days per week with one hour and a half on Saturday. At the beginning of the year the Freshmen are given recruit instruction by their own cadet noncommissioned officers, and the various troops are given a shake-down period of close- and extended-order drill. From this they progress to dismounted squad, platoon and troop combat training on natural terrain in the hills adjacent to the school. These involve tactical exercises in which leadership and control of units by noncommissioned officers and officers is emphasized. The Unit has 88 government mounts assigned, which is all that present stabling facilities will accommodate. This permits one troop per day (by roster) to go to mounted drill. Also one troop at a time (by roster) receives practical instruction in weapons; Freshmen in preliminary rifle marksmanship, Sophomores in small-bore gallery practice, while Juniors fire the dismounted pistol course. The Seniors of such troop, buck privates as well as cadet officers, are assigned to the various groups as instructors under supervision of one or more of the commissioned instructors. It has been found that the Seniors rise to this responsibility and that the Senior "bucks" especially develop self-confidence and derive valuable training from the experience. During this period also all Seniors are given instruction in voice drill and the giving of drill commands.

In this climate cold and inclement weather stops the outdoor work from about November 1st to April 1st. This winter period is devoted to classroom instruction covering the various subjects required by the War Department Directive. This instruction is conducted by classes, that is, First- and Second-Year Basics and First- and Second-Year Advanced, in contrast to the outdoor work which is conducted principally by troop, each troop consisting of members of all classes.

Since Norwich is fortunate in having a well-constructed riding hall, equitation is carried on throughout the whole school year. Equitation classes are kept small and are staggered throughout the day. Schedules are arranged by utilizing academic periods that otherwise would be vacant, so that each cadet from Freshman to



Top: **Graduating class taking oath of office for commission.** ***Bottom:*** **Polo at Norwich**

Senior gets one equitation period per week for the entire year in addition to mounted drill with his troop in the spring and fall. This equitation is in addition to the regular periods of military instruction.

Besides the above-mentioned routine schedule of instruction there is opportunity for cadets to participate in extra-curricular military activities. With the facilities afforded by the riding hall, polo is carried on throughout the year. Practice and games are conducted five days a week. In the fall and spring a very satisfactory outdoor field is available and used to the fullest extent. During the winter months, indoor polo is carried on in the riding hall. At times a squad of about forty-five players are active in this sport.

A group of selected riders is formed into a Jumping Class for the training of both horse and rider. This class works two evenings a week in the hall. By this means selected horses as prospective jumpers are improved, the cadets receive instruction in jump riding and the development and training of jumpers, and interest in this and other phases of horsemanship is fostered and encouraged.

For cadets interested in rifle marksmanship, a rifle squad is maintained from which a rifle team is selected to represent the University in various team and individual matches. An excellent small-bore range is provided in the armory. The interest displayed and the benefit derived from this activity is demonstrated by the very creditable results obtained in competition with other collegiate and civilian rifle group teams.

Since our entry into the war the tempo of instruction has been stepped up. A course in physical training has been incorporated for the Juniors and Seniors with a view to improving their physical condition and hardening the Seniors for the field service which their active duty after graduation will entail. Additional time has been devoted to the Juniors in an intensive course in rifle marksmanship, including the firing of an additional small-bore gallery course.

A 28-hour course in motor maintenance and the duties of a unit motor officer has been initiated for the Seniors. This is given two hours per week in extra time that has been made available and is an addition to the original program of instruction. This action was taken to better the preparation of those cadets who will go to the Armored Force and those who sooner or later will have responsibilities involving motors with the Cavalry regiments. Instruction in this course is both theoretical and practical.

With active duty immediately after graduation assured, the thought and contemplation of things military in the minds of the Seniors far outweighed their interest in academic subjects. Recognizing and capitalizing on this, the academic faculty was induced to forego the formal final academic examinations for Seniors and made the week originally set aside for these available to the Military Department for a final period of intensive practical training. This period was devoted to training with an Armored Unit. Through the courtesy and coöperation of the Commanding General of the Armored Force and of Major General Henry H. Baird, Commanding the 4th Armored Division, arrangements were made for the entire Senior Class to visit Pine Camp, New York, and spend a week with the 4th Armored Division. During this time the cadets were assigned to units of the division as junior officers. They were given and accepted the duties and responsibilities of second lieutenants, assisting in the training and in some cases being required to take over one or more sections of the NCO schools in the evenings. This really put them on the spot and their reaction to the situation was very gratifying. The result of this trip was of inestimable value, bringing out and crystalizing the latent qualities of initiative and leadership which their four-year course as cadets had endeavored to form, as well as giving each cadet considerable first-hand knowledge of the organization and matériel of the Armored Force. The outstanding success of this period was due to the wholehearted coöperation of all members of the 4th Armored Division.

Two days after their return from this trip these cadets were graduated and received their commissions. In spite of the fact that this is solely a Cavalry Unit, a considerable number of cadets were commissioned in other branches of the service, viz: Armored Force, Engineer Corps, Signal Corps, Chemical Warfare Service and Air Corps (non-rated). Approximately ten days after graduation, the majority of these new second lieutenants were ordered to active duty.

Cavalry R.O.T.C. at V.M.I.

*By Colonel George D. Wiltshire**

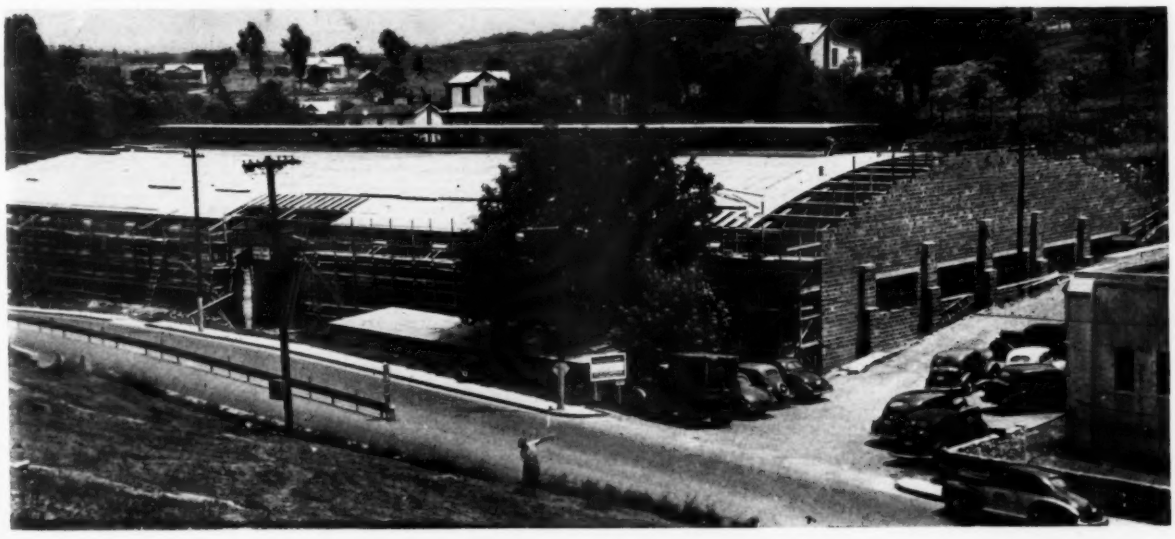
"THE object is to supply the place of the present Guard, by another, composed of young men from seventeen to twenty-four years of age, to perform the necessary duties of a guard, who would receive no pay, but in lieu, have afforded to them the opportunities of a liberal education." Thus wrote Colonel J. T. L. Preston, some hundred-odd years ago, when there was under consideration a plan for substituting for the guard at the arsenal near Lexington, Virginia, a guard composed of cadets. When this plan was at last put into operation the Virginia Military Institute was born. Since that time she has been contributing in war and in peace, soldiers of a high order ready to give their best in fighting for their country or in pursuing more peaceful civilian occupations. During the Civil War the V.M.I. Corps fought as a unit in the Battle of New Market in May, 1864, and was instrumental in deciding that engagement in favor of the Confederates. It is believed that this is the only time in history that a student body as such has participated in a battle. During World War I, of the 2,484 men who had graduated since the founding of V.M.I. in 1839, many of whom had long since died, 1,830 served with the armed forces of the United States. Of this number seventy-eight per cent held commissions. In this second World War, V.M.I. men are again using the training they have received to help tip the balance in favor of the United Nations.

Of this year's graduating class, which was graduated a month ahead of schedule as a contribution to the war effort, 134 out of the 146 graduates went into the armed forces ten days after their graduation. Of the remaining twelve, seven were enrolled in medical schools and five were physically disqualified. The recent graduating classes are virtually one hundred per cent in the armed forces.

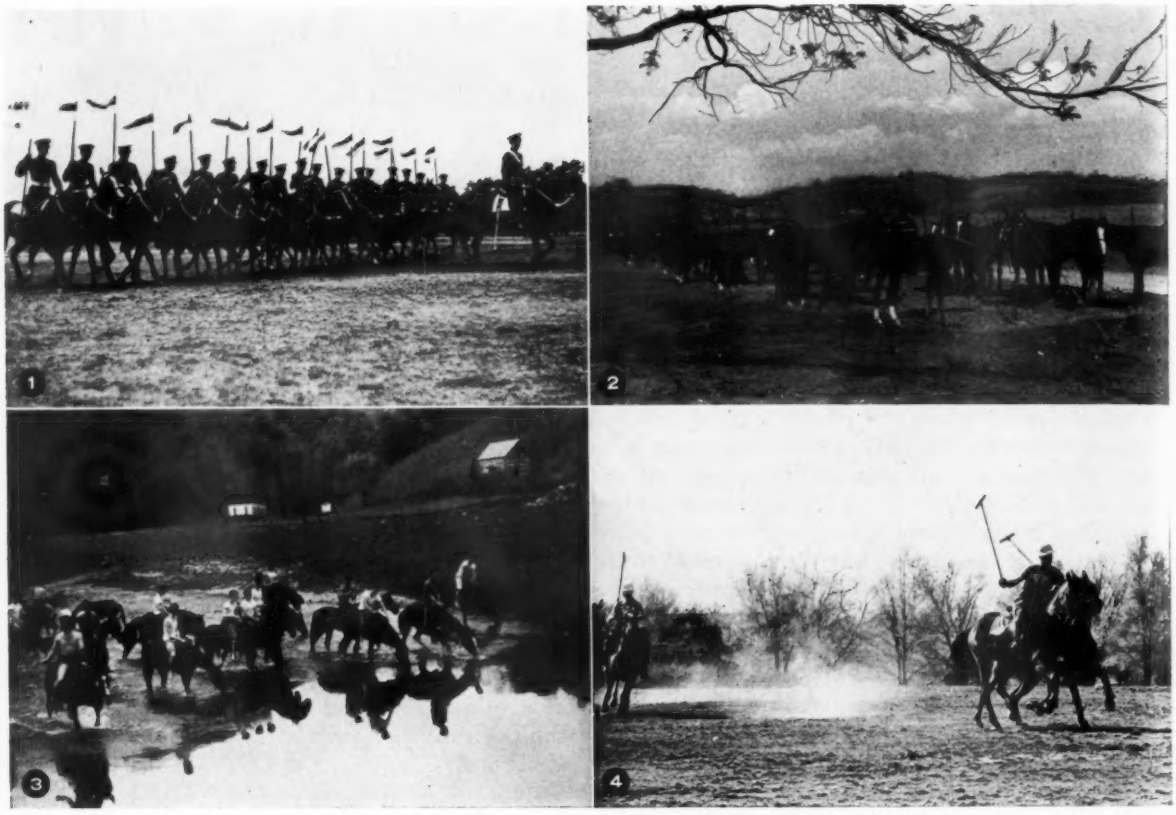
V.M.I., from its inception, has been a military institution. All cadets are required to take military training whether enrolled in the ROTC or not. V.M.I. was producing soldiers many years before the ROTC was conceived. Cadets live the life of a soldier—wearing the uniform at all times, living in barracks, governing themselves as a regiment of cadets, maintaining an interior guard twenty-four hours a day during the entire school session, and marching to and from classes and the mess hall. This life acquaints them with the military system long before they don the olive drab. All instructors in the academic department hold honorary commissions in the Virginia Militia, and are required to wear uniforms to all classes. Cadets observe all the military courtesies towards these members of the academic staff.

Three arms of the service are represented by the ROTC—Field Artillery, in which about one-half the Corps of Cadets is enrolled; Cavalry, with one-third of the cadets; and Infantry with one-sixth of the cadet Corps. The corps is, for the purposes of drill and administration, organized into a regiment of six companies. Cadet officers come from the First Class, NCO's come from the Second and Third Classes. Every cadet, whatever may be his unit, attends basic infantry drill

*Senior Cavalry Instructor, V.M.I.



New riding hall now under construction



1—A platoon trots past the reviewing stand. 2—Horses tied to the picket lines on the annual spring hike which replaces "spring vacation." 3—Water Call. A platoon watering horses on the spring hike. Each cadet must care for his own mount throughout the period of the hike. 4—Polo. Qualified riders may have a try at polo, coached by one of the R.O.T. C. instructors.

three times weekly, Regimental Parade three times a week, and Regimental Review and Inspection once a week.

Utilizing the 150-acre drill ground owned by the Institute and the neighboring farms and country roads it has always been the effort of officers assigned to ROTC duty at V.M.I. to make their instruction practical and useful. The beautiful and rugged mountain country offers excellent terrain over which the cavalry can prove its worth. There is adequate ground for interesting combat exercises and rigorous cross-country rides.

Now that the United States is at war, as might be expected the cadets show a noticeably increased desire for military instruction. The Military Science Department, consisting of eight officers; three cavalrymen, four artillerymen, and one infantryman; plus well-qualified enlisted instructors, is doing all in its power to satiate this desire for information. By taking advantage of information circulated by the service schools and appearing in service journals, and by sending junior officers to the service schools the officers assigned to duty at V.M.I. are endeavoring to keep abreast of current developments and to pass them on to the cadets so that they may perform creditably the job that lies ahead of them. The War Department course of instruction calls for 512 hours of instruction. V.M.I. gives 1,038 hours which, of course, does not include the time spent in performing guard duty. Cadets receive instruction in riot control, pistol and rifle firing, mechanization and motors and other subjects which are not prescribed by the War Department. In order that cadets may become thoroughly familiar with training methods they are required to prepare and present lectures or instruction to their own or under classes. Since V.M.I. is fundamentally a military institution there is never any question of coöperation between the military and academic departments. As an example Personal Hygiene and Military Sanitation and First Aid are taught by specially-qualified instructors of the Physical Education Department.

An innovation introduced this year by Colonel W. A. Ellis, Infantry, the P.M.S.&T., was an "Officers' School" for all members of the First Class. The purpose of this school was to equip prospective graduates with the tools necessary to be second lieutenants. Colonel Ellis was assisted in this instruction by the officers on duty with the ROTC. In this school, which was substituted in lieu of drill for members of the First Class only, the men were given practical experience in giving commands, told something of their relationships

with enlisted men, instructed how to report at their first station, taught training methods, told what to buy in the way of uniforms, and many of the other minor but perplexing problems that face a new "Shavetail."

To the Superintendent of V.M.I., General Charles E. Kilbourne, U.S.A. Retired, is owed a debt of gratitude for his interest in and his encouragement of all horse activities. Though brought up in the Coast Artillery, General Kilbourne, is aware that horses are not outmoded and that horsemanship is useful for developing in officers the kind of courage and determination needed to lead men.

New fireproof stables were built at V.M.I. in 1938. They house 180 horses, ninety being assigned to the cavalry and ninety to the field artillery. A detachment of conscientious, hard-working enlisted men keeps the horses, their equipment and the stables in top shape. A spacious riding hall, 125 feet by 280 feet, now in the process of construction, will add much to the plant for military instruction.

In addition to routine instruction many extra-curricular activities contribute towards building the men with strong bodies and determined minds which we are going to need sorely in the uncertain days ahead of us. The intramural athletic program in which there is 100 per cent participation by cadets develops a keen and healthful competitive spirit among the cadets and between the companies. Recreational riding is available to all cadets, even the infantrymen, who are given an opportunity to learn to ride and qualify for riding privileges. The cadets maintain a pack of hounds and each Sunday afternoon through the fall and winter the hunt club, boasting a membership of almost all cadets who hold riding privileges, holds a drag hunt. Especially qualified riders may become members of the Horse Show and Polo Teams. In more peaceful days these teams have distinguished themselves by defeating high-class competition in the show ring or on the polo field. All these riding activities are under the direction and sponsorship of one or more of the cavalry or field artillery officers on duty at the Institute. There are also intramural and intercollegiate rifle and pistol teams coached by Army personnel which give many cadets the opportunity of becoming proficient marksmen.

The summer weeks of 1942 are being spent by officers on ROTC duty in renovating their courses in an effort to present instruction of a very sound and practical nature. Cadets next year will spend more time estimating ranges, leading small units, making use of cover, and crawling on their bellies. There will be less talking on the part of instructors and more *doing* on the part of students. Wars are not fought on maps or on blackboards. While students are learning their lessons on the ground their bodies will be growing tough and hard as they must be, and when they leave here it is hoped that they will be able to step into the job assigned and do their duty.

AT YOUR SERVICE

American Red Cross

IT takes more than a uniform, a gun, and daily drills to make a good soldier. Soldiering is a job that calls for courage and morale. And neither is possible if the man in uniform is burdened with worries over the welfare of those he has left behind.

For this reason there is need for a source to which the soldier can turn to unburden himself; for a source that can assist his family in meeting the social and economic problems which arise, and keep the home ties intact during his absence.

In 1905 a far-seeing Congress placed those duties in the hands of the American Red Cross.

Today, as in the first World War, the American Red Cross is meeting those responsibilities.

Since 1940, when Selective Service became effective, the growth of the Red Cross and the expansion of its services to the men in the armed forces and their families at home has kept pace with the growth of the Army and Navy.

Veteran service men, who remember the work of the Red Cross during the last war and its efforts on behalf of the veterans of that war, will not be surprised to learn that more than one-half of the current budget of the Red Cross has been set aside for services to the armed forces. Nor will they be surprised to learn that large quantities of supplies and equipment, gathered for the physical and mental well-being of the men of the Army and Navy, have been sent to camps, ports, and overseas stations wherever American soldiers are stationed, and that hundreds of trained workers and volunteers have been enlisted and assigned to the task of performing the duties placed upon the Red Cross when it was chartered by Congress.

All this has been made possible by the contributions of millions of patriotic Americans to the Red Cross War Fund.

Briefly, the present efforts of the Red Cross are directed at bolstering the morale of our fighting men by relieving their minds of worries that so often arise while they are in training and on combat duty. Veteran officers already know, and newcomers soon learn what assistance the Red Cross Field Directors can give them in dealing with the personal problems of their command. Red Cross assistance to American soldiers is outlined in Army Regulations, 850-75.

In the first three months of 1942, according to Chairman Norman H. Davis, the American Red Cross aided 197,127 service men in the solution of personal and family problems.

The extent to which the Red Cross can aid a serviceman depends largely upon the individual. Though its impressive history shows that it has sometimes performed tasks that verged on the miraculous, the Red Cross is not gifted with any special type of clairvoyance. Before it can perform its services for a soldier, it must know that he wants and needs those services. Only the individual soldier, or his commanding officer, can provide that information.

Further, it is important that servicemen bear in mind that they are not objects of charity when they ask the Red Cross to help solve their problems, apply for a cash loan or grant to get to the bedside of a mother or father who is seriously ill, or want help to tide their family over a financial rough spot. The day the soldier dons the uniform of the United States Army, it becomes the duty of the Red Cross to assist him wherever and whenever it can.

To meet this obligation, the Red Cross today has more than 1,400 staff workers stationed at Army and Navy posts. They include field directors, case workers, medical social workers, recreation leaders, and the necessary clerical help. Red Cross headquarters buildings have been constructed at all major camps and more are planned.

Together with the more than 3,700 Red Cross chapters and their more than 6,000 branches, these field workers are the tie with the man in uniform and the folks back home. No problem is too great or too small for their attention.

If the soldier needs advice on family and business matters, the Red Cross is there to help him. If some member of his family back home needs employment, the Red Cross will try to help him or her find it, and if the folks back home are in need of temporary relief—financially embarrassed through no fault of their own, again, the Red Cross is there to offer a helping hand.

Dental and medical care for children of the men who wear Uncle Sam's uniform, providing special diets for their health, clothing them, purchasing glasses—all this is within the sphere of the American Red Cross which coöperates with local public and private agencies, thereby eliminating a duplication of services.

Men who have been in the service for any length of time are probably already familiar with the numerous other Red Cross services at their posts. In meeting the requirements of men who are hospitalized is the work of the Red Cross particularly outstanding. Through Camp and Hospital Service Councils, radio sets, recreation equipment, and a wide variety of reading material—including magazines and home-town newspapers

Left: **Six Army Nurses recently returned from service on Bataan receive citations.** *Right:* **Coffee and doughnuts are popular at Red Cross canteens**

—are provided. Red Cross recreation workers help lift the spirits of the convalescents by arranging for moving picture shows, drives out into the country in automobiles provided by the Motor Corps of nearby chapters, and other entertainment. The gracious "Gray Ladies" visit soldier-patients, write letters for them, read to them, and join in quiet games which help take the patient's mind off his ailment and ill-fortune.

Blood donated by thousands of Americans and collected by the Red Cross has saved the lives of many soldiers who were wounded in combat. At the request of the Surgeon General, the Red Cross is collecting 1,280,000 pints of blood which will be processed into dried plasma for emergency transfusions for American fighting men. A total of more than 460,000 pints have already been donated by patriotic men and women.

Many American soldiers now overseas already have in their possession a little kit bag that contains much to make the serviceman's life a little easier. Prepared by production workers in home-town chapters throughout the country, these little khaki kits contain needles and thread for mending, water-proof match boxes, cigarettes, soap and soap containers, a shoe polishing cloth, a popular detective novel, and other small items to make their days aboard ship more comfortable.

Overseas, Red Cross field directors and recreation leaders experience the same dangers as the fighting man. The histories of Corregidor and Bataan will record the quietly heroic deeds of Red Cross workers, who worked steadily during the battering meted out by the enemy, and asked no quarters when those American possessions were surrendered temporarily by General Wainwright.

Upon their arrival on foreign soil, the first thought of Red Cross task force staff personnel is for the comfort of the troops. Field headquarters are established immediately, and as requests arise, service clubs, such as those which have become so popular with American soldiers now in England, Iceland, Northern Ireland, Australia, and New Caledonia, are established. The friendliness of the Red Cross staff helps make the clubs an oasis of American life for the boys from Gotham to Podunk. It is to these clubs that they go to dance, to meet friends, to read, and eat their fill of such typically American delicacies as hot dogs and hamburgers.

Perhaps the popularity of the Red Cross service clubs is best described in a letter recently received from a field supervisor soon after his arrival in Northern Ireland. Telling of the ceremonies which attended the opening of the club, he wrote:

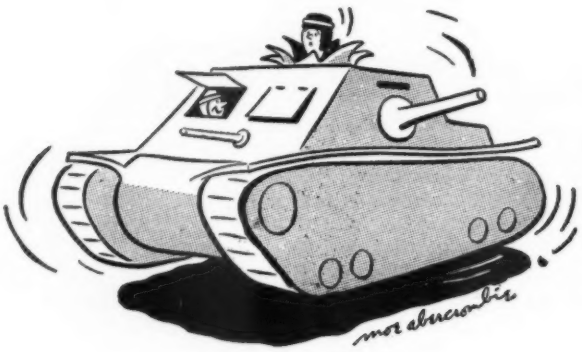
"We had practically every person of note in Ulster present and served more than 400 at afternoon tea. But what was more important, about 700 boys from our armed forces came in to dance and 'look around' during the evening. We had a dance to which we invited about 75 'Wrens' (Women's Royal Navy) that was a grand success. About 300 boys gave them the time of their lives. But we also had some Coca-Cola, 1,800 bottles of it, that we expected would last us a week. Twelve hundred bottles went during the evening and the remainder by the next day!"

The charge for food at such clubs is nominal. At the one described above, an evening dinner of soup, steak and vegetables, raspberry custard tart, coffee, rolls and butter, costs service men only 20 cents in American money. A night's lodging on a real bed, bath, and breakfast at the same club costs only 52 cents. No profit is derived from these charges.

As to how Red Cross workers overseas feel toward the men in uniform, their attitude is summed up in this paragraph from the same field supervisor who described the opening of a Northern Ireland service club.

"If I have any message to send to the people back home, it is this," he wrote. "We, here in the American Red Cross Service Club, are seeing to it that their sons will have the best in food, shelter and recreation that can be given to them under existing conditions. The men appreciate this and speak of the Red Cross in words that sometimes embarrass us with their praise. They're a fine lot of boys, and we're proud of them."

Horse Feathers



"Bumpy, isn't it?"

—Halt.

Oh Yeah?

"You say you didn't get in until three this morning, and are too sleepy to get up until Reveille? Well, that's all right, you can sleep until noon and I'll have the sergeant call you when lunch is ready!"

"You say you don't care for the food we're serving you here in camp? Why didn't you speak up sooner, I'm sure the mess sergeant will be only too glad to serve you anything you'd care to ask for!"

"You say you're allergic to noise? Well then, never mind target practice—why don't you drop over to the library and pick a nice quiet spot to catch up on your reading?"

"You say your uniform doesn't fit you properly? Why I'd be only too glad to call in a tailor right away. Do you like the shoulders with a little more padding? Perhaps you'd like a little more drape to the trousers—or maybe the pants should strike you higher and have pleats at the top—or maybe you'd like. . . ."

"You say you have a date tonight and you told your girl you were an officer? Why I'm sure the captain would be only too glad to lend you his uniform. And by the way if you're a little short of cash I'm sure that he would be glad to let you have some to tide you over."

—Halt.

MOTOR SERGEANT (to driver): "Your truck O.K. to roll this morning?"

DRIVER: "Yes, sir, 'cept the horn is indifferent."

SERGEANT: "What do you mean—indifferent?"

DRIVER: "It just don't give a toot."

We'll be seeing you—Nippo!

On Board Ship, June 16.

Hon. Mr. *N. Y. Times* Ed., U.S.A.

Verry sad are the feelings as hon. steamship transports sheltered Japanese diplomattic squad homeward from Hot Springs to native land.

Nice safe native land maybe was Nipponese Kingdom under Founding Father Jimmu-tenno many centuries back, but how will it going to be under Jimmudoolittle in next cupple years, I ask you?

Excuse kindly if sending you farewell poem on this delikit subjict, as follow:

Native land I long to be
Long way from at pressent.
Carry me back to Old Virginia,
If please.

K. NIPPO.

—N. Y. Times.

COOK: "What's the matter now, soldier, the meat tough?"

ROOK: "Naw, the meat's swell, but I can't cut the gravy!"

Ready On the Firing Line

"How do you know you hit that duck?"

"I shot him in the foot and in the head at the same time."

"How could you possibly hit him in the foot and head at the same time?"

"He was scratching his head."

—Exchange.

"This is the fourth morning you've been late," said the colonel to his orderly.

"Ye, sir," he replied. "I guess I overslept."

"Where's that alarm clock I gave you?"

"In my tent, sir."

"Don't you ever wind it?"

"Yes, sir, every day, sir."

"And do you set the alarm?"

"Yes, sir, I set the alarm, sir."

"Then what seems to be the matter?"

"Well, you see, sir, the thing always goes off when I'm asleep."

Weather forecast (for drunken driver): Fine today, cooler tomorrow.

Book Reviews

GET TOUGH! How To Win in Hand-to-Hand Fighting. By Captain W. E. Fairbairn. D. Appleton-Century Company, New York. 1942. 121 pp. Well illustrated. $1.00.

"You don't need brute strength; with your bare hands you can beat the man who wants to kill you." Thus writes Captain Fairbairn, the man who has taught the British Commandos and the U. S. Marines his scientific methods of close combat.

Captain Fairbairn was the first foreigner ever admitted to Kodokan Jiu-Jutsu University in Tokyo where he was awarded the Black Belt, Second Degree. He has made a scientific study of close hand-to-hand combat and in this book gives clear, simple instructions that "applied vigorously and without restraint, will result, if not in the death, then certainly in the maiming of your opponent."

One hundred and forty clear-cut line drawings illustrate the simple instructions regarding Blows, Releases, Holds, Throws, Use of the Knife, the Smatchet, Disarming an Opponent of His Pistol, and much miscellaneous advice covering subjects that range from the art of getting up from the ground to various methods of securing a prisoner.

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